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Smith, S. & Sons, Ltd.
Stimex Gas Stove Co.
Wright, Geo. Ltd
Young & Marten Ltd.

Structural Iron and Steel
Braby, F. & Co. Ltd.
Braithwaite & Co.
Clark, Hunt & Co. Ltd.
Davis, H. & C. & Co.
Dawnay A. D. & Sons Ltd.
Dunlop & Ranken, Ltd.
Fleming, P. & R. & Co.
Freeman's
Haywards, Ltd.
Henderson & Glass
King & Co., Ltd.
Measures Bros. (1911), Ltd.
Partridge, T. & Co.
Power's & Deane, Ranscome's Ld
Shaw M. T. & Co
Trussed Concrete Steel Co. Ltd.
Wild, James & Co.

Suction Cleaning—
Sturtevant Engineering Co. Ld.

Surveying Instruments—
C. Baker
Clarkson's

Tanks, Cisterns &c.
Braby, F. & Co.
Builders' Material Association
Butterfield, W. P., Ltd.
Farmiloe, George & Sons, Ltd
London Galvanised Iron Co. Ld
Mather & Platt, Ltd.
National Galvanisers Ltd.
Nicholls & Clarke, Ltd.
Shaw, M. T. & Co.
Young & Marten Ltd.

Tar (all kinds)—
Woods, Sons & Co.

Tar Boilers—
Phoenix Engineering Co. Ltd.

Terra Cotta—
Dennis, Henry
Hathern Station Brick Co., Ld
Leeds Fireclay Co. Ltd.

Tiles—
Bomert, Teves and Blankley
Cope & Co
Dennis, Henry
Hodge, F., Ltd.,
Leeds Fireclay Co. Ltd.
Maw & Co., Ltd.
Minton Hollins & Co. Ltd
Sankey, J. H. & Son, Ltd.
Walker, Chas. & Co.
White, Child & Beney, Ltd.
Wire, A. D. Ltd.

Timber—
Aston Grant & Co., Ltd.
Brown, H., Limited
Calder & McDougall, Ltd.
Ford, H. J.
Gliksten & Son, Ltd.
Hall, L.
Jennings, C. & Co.
Leary, C. & Co.
Longbotham, J. & Co.
Longhurst, E. & Sons
Millar's Timber & Trading Co
Price & Low, Ltd
Priday, S.
Venesta, Ltd.

Tyres—
Bergougnan Tyre Co.
Dunlop Rubber Co. Ltd.
Michelin
North British Rubber Co.
Palatine

Underlining, &c.—
Engert & Rolfe Ltd.
McNeill, F. & Co. Ltd
Vulcanite, Ltd.
Willesden Paper & Canvas Wks.

Ventilating—
Boyle, R. & Son
Dargue, Griffiths & Co., Ltd.
Ewart & Son, Ltd.
Haywards, Ltd.
Keith & Blackman Co.
Kinnell, Chas P. & Co., Ltd.
Murray, S. D. & Co., Ltd.
Rosser & Russell, Ltd.
Sturtevant Engineering Co. Ld

Wall & Ceiling Covering—
Beaver Board Co., Ltd
Fiberlic
Machin & Kingsley, Ltd.
O'Brien, Thomas & Co.
Thames Mills
Venesta, Ltd.
Young & Marten Ltd

Waterproofing—
Adamite & Co., Ltd.
Building Products, Ltd.
Callender, G. M. & Co.
"Cureo" Co.
Ebner, J. F.
Kerner-Greenwood & Co. (Pudlo)
Super Cement, Ltd.
Triton (Liverpool) Ltd.
Torbay & Dart Paint Co.

Wine Bins (Iron)—
Bayliss, Jones & Bayliss, Ltd.
Farrow & Jackson

Wire Screens—
Duke, Waring, Crisp & Co.
Johnson Clapham & Morris, Ld
Moriarty & Co. (1911) Ltd.
Parker, Winder & Achurch

Window Frames & Sashes
Braby, F. & Co Ltd.
Carron Company
Clark, Hunt, & Co. Ltd.
Crittall Mfrg. Co., Ltd.
Hayter, Ltd.
Haywards, Ltd
Williams & Williams, Ltd.

Wood Flooring—
Acme Flooring and Paving Co.
Ebner, J. F
Homan & Rodgers, Ltd.
Improved Wood Pavement Co.
Turpin's
Zeta Wood Flooring Co.

Wood Preservative—
Fuller, John H. & Co. Ltd.
Maclean Wm. Sons, & Co.
Major & Co., Ltd.
Reparo, Ltd.
Sterns, Ltd.

THE BUILDER

A RECORD OF ARCHITECTURE AND CONSTRUCTION.

WITH WHICH IS INCORPORATED THE "BRITISH ARCHITECT."

VOL. CXIX.—No. 4062. DECEMBER 10, 1920.

SIR ALFRED MOND AND HIS OCTOPUS.

WHAT are the functions of a Government department? This is a question which concerns everyone at the present time. It is a question which might be well applied to all departments and is not only of vital interest to the taxpayer generally, but also specifically to the different sections of the community, whether professional, trading or operative. It is no use mincing matters any further or trying to delude ourselves with the idea that the man in the street who supplies the sinews of war and of peace has any real voice in the way his money is expended. In theory, of course, he is omnipotent. On paper he returns Parliamentary representatives who are his mouthpieces and make his will known and effective in all Parliamentary procedure. In practice these representatives, either through lack of interest or initiative, or through loyalty to those they serve or from whom they hope for future preferment, merely follow a party lead without any reference to the feelings of their constituents on the great majority of national issues. No, we are not revolutionaries; we do not want to see the present system overthrown, as we do not think anything better could be devised—at least, at the present stage of civilisation. We merely ask that the system shall really function and that the nation shall have a real voice in national expenditure. We are tired of the turgid style of preaching personal economy adopted by Ministers when millions are voted amid empty benches and inadequate critical analysis. Even the Treasury appears to have given up any attempt to hold the purse strings, so that at the moment almost any department which can secure Government support can obtain any funds it pleases and afford to disregard protests by private members and the Press. We referred last week to the Supplementary Estimates. These estimates in an ordinary business would generally be regarded as evidence of lack of ability to forecast prospective necessities. A man who makes estimates is supposed to possess so intimate a knowledge of his business and future markets that he can advise his company and let shareholders know the financial position to be faced. In the case of the Government it would seem that national estimating is a sort of pastime, and is performed in a manner which would bring a business firm into liquidation.

Let us, however, turn to the particular matter which specially concerns us as interested in the professional and trade welfare of the building industry. The position is this: One Government department has endeavoured to absorb the functions of private enterprise, appointed an army of officials to batten on the taxpayers' money, scouted private help from the trade, complicated business in a manner only known to officialism, and, finally, so far has failed, that it has had to come to the trade for assistance. Now another department proposes to take a hand with a new set of officials. We should really have thought that sufficient patience had been shown towards Dr. Addison's expensive experiments and that sufficient decent feeling existed even yet in Government circles to admit of quiet funeral arrangements, and even so it would cost the executors a pretty penny to straighten out the estate. But, no. The patient is not to die, but to be transfigured into a form much more sinister than before. If we have sighed over the cost of his doctors, nurses and drugs so far, we shall wail and quail before our bankers now.

Sir Alfred Mond does not merely ask to be allowed to take over housing schemes. Much more than this, it is the actual designing and building of the houses which are in question. He does not come to Parliament and request that the Office of Works may undertake what is obviously quite outside its functions—*it is doing it.* And now, without any apology, he asks for and has obtained powers to go on. What is his argument for this proposal? It is this: That he can build more cheaply than private contractors. We challenge this statement. During the war a large number of houses were erected by the Government for munition workers, and certain statistics as to cost were, we believe, given, but it is one thing to give a builder's contract and quite another to give the proportion of establishment charges to be added for the cost to the nation of carrying out the scheme. We know—everyone knows—that no Government official has any interest—or would it be fairer to say any power of exercising an interest?—in business economy. Each is a piece of a machine, the aim and object of which is primarily to justify its existence and add to its lustre by extending its tentacles, thus proving its importance and adding to its official salaries. A private builder has to make things pay, a Government department has to make the Exchequer pay. We do not allude in any sense to the proper functions of departments, but only to these trade-dabbling off-shoots which have proved so disastrous. We learn from *The Times* that the Office of Works' salary list has risen in one year from £278,000 to £455,000, and that the 1913–14 staff of 384 is now 581, to which number must be added many others not returned. We want a statement, and we hope the public through their Parliamentary representatives will demand a statement, prepared by an independent party devoid of any Government interests, of the cost—all charges of every kind included—of the houses which the Office of Works has, without authority, so far built or is building for local authorities. We should like to inquire whether the penny rate on such houses can be legally recovered from the ratepayers concerned.

There is, however, another aspect even more important than mere finance, and that is the duty owed by the nation to the professional man and to the building employer. During the war, architectural work was closed down—the only profession which was compulsorily deprived of its livelihood. Not only this, but architects received no general recognition as valuable war servants, which should have been accorded to them. All this was borne cheerfully enough. Now, owing to difficulties which need not be reiterated here, the most substantial building operations proceeding are in connection with housing, for though much factory work was in demand recently, this is becoming a rapidly decreasing quantity now. At present independent architects are appointed to most housing schemes and many young men who returned from the war to find their practices gone have been saved by this work. Now comes the octopus which is to deprive these men of their living at, we contend, greatly increased cost to the nation. The same argument applies to the employer of labour whose building work daily becomes increasingly difficult. It is quite time that the architectural profession had some united Parliamentary voice; only in this manner will these questions be properly ventilated and national and individual interests really safeguarded.

NOTES.

The Office of Works and Housing.

We discuss in our leading article the increased activities of the Office of Works in housing matters, indicated by the Supplementary Vote of £200,000 on behalf of the Department which has been obtained from the House of Commons. In an admirable letter by the President of the R.I.B.A. to *The Times* on Tuesday, some shrewd questions are asked on the all-important question of cost. "The Ministry of Health," says Mr. Simpson, "to do them justice, are extremely concerned about cost, and the checks and forms by which they seek to control it are whitening the hair of many a town clerk and housing architect. Are the plans and accounts of the Office of Works to be subjected to the same minute investigation by the Ministry (if so, we may look for another considerable increase of officials), or may we suspect that relief from that harassing supervision is one of the great inducements to local authorities to hand over the whole worry to the uncontrolled Office of Works, and d—— the expense?" He also says: "The Office of Works—I quote Sir A. Mond—'is acting in the capacity of architects and contractors.' The nature of the 'contract' is not stated, but his explanations seem to indicate that it is no more than an 'estimate,' which may or may not accord with the eventual cost to the local authority. One of the most important duties of an architect is to supervise the work of the contractor and protect the interests of his employer. Will the Office of Works condemn defective work in its own buildings? At whose expense will it be made good?" These questions are very much to the point, and taxpayers, not to mention architects as such, should demand to have them answered.

Cheap House Plans!

The general misapprehension of the use and value of an architect's services is well illustrated by the offer of complete plans of a house "in all respects equal to actual architect's drawings" and which can be used as contract drawings or for depositing with the local building authorities, for seven shillings and sixpence, post free, to be paid to the Editor of a monthly paper. We suppose the idea of this is to eliminate the architect. The Ministry of Health is the best authority to supply stereotyped plans for cottages, but the more expensive scheme alluded to above might perhaps serve as a type of design which would turn out just as well without any architect at all (?) One thing, of course, is certain, and that is the real value of a good architect's services lies not only in drawing out the plans, but in providing some brains and taste behind them, and in seeing that they are realised properly in execution.

Our Unfortunate Medals.

To invite designs for a War Medal in open competition and then to stultify the issue by awkward restrictions and alterations and spoil what is left in the execution seems to sum up our essentially British way in matters of art. A writer in *The Times* says: "The Victory Medal is without doubt the most deplorable specimen of reproduction that even the Mint is so far responsible for . . . The Mint has employed every possible device to make the medal look like a trashy commercial production."

Westminster Abbey.

The judicious gift of one hundred guineas, accompanied by a letter of good counsel from the Society for the Protection of Ancient Buildings and the Art Workers' Guild to the Dean of Westminster for the preservation of Westminster Abbey should do something to keep alive those excellent principles which the Society has maintained, and also to give confidence for the bestowal of further moneys on this important work.

The Exhibition of Advertisements.

The recent Advertising Exhibition at the White City is a sign of the great developments in this direction. If it should lead to our streets becoming less disfigured we would not grudge the money spent on it, for advertising has now become one of the great national industries, with an annual expenditure, so we are told, of £100,000,000! As we are all much concerned by the character which the poster takes, seeing that it pursues us almost everywhere, there is every reason for its being undertaken in good taste. Advertisement sells the goods; perhaps it would sell them better if better done. Education should here come to our aid, and recent improvements are attributable to the influence of education diffusing itself in this direction. Of this the Metropolitan Railway has shown an example in being able to call to its aid a better class of work. Its advertisements show a taste and restraint deserving of recognition and high praise, which should have an influence very much to the welfare of public advertising and of those who look at it. The Railway has appreciated that the public are looking for better work, and some of our leading advertisers might well take advantage of the instruction afforded. Both in subject matter, treatment, and the more becoming method of display the advertisements of the Metropolitan Railway have so much to recommend them that we hope they may exercise a check on the, unhappily, too often strident and vulgar character attaching to many posters.

The Education Bill and Advertisements.

The operation of the Education Bill, in spite of the direct pledges of the Government, is in danger of being postponed for three years on account of the cost. The whole amount spent annually on public education is about one-third of that spent annually on advertising alone. It is an interesting commentary on the national mind that educational improvement—which reacts towards the national well-being and the improvement of the country (as advertising claims to do on the expansion of commerce) and which is a direct aid to commerce, because it is only by the improvement and by the high standard of our productions that we can hope to retain our markets—is not realised as yet. We are an active rather than a reflective people, and we do not see how much it would aid the manufacturer to support education wholeheartedly, and that if he grasped the importance of the one to the other he would not grudge the money to education, nor would he participate in any proposal to postpone the operation of Mr. Fisher's Bill.

The Working Week.

It is of interest to note that the secretary of the Workers' Union has written to the secretary of the Okehampton Building Trade Employers' Association to the effect that the offer to pay 1s. 8d. an hour to mechanics employed in the building trades, and 1s. 5d. to labourers, as from December 1, is accepted by the men. They stipulate, however, for a 48-hour week instead of 44, and suggest that the matter be again considered as soon as building of houses under the Government scheme has started. The employers, while having no objection to a 48-hour week in the summer, are not disposed to agree to anything beyond a 44-hour week for the winter.

The Château of Étrepy.
(*See* p. 662.)

From the Exhibition at No. 16, Cork Street, W.

"Le Mont des Cats.

From the Etching by Bertram Buchanan. (*See* p. 650.)

Lectures by Mrs. Strong. MRS. ARTHUR STRONG, Litt. D., LL.D., F.S.A., Assistant Director of the British School at Rome, is announced to deliver a lecture, illustrated by lantern slides, on "The Art of the Counter Reformation and Bernini's work at St. Peter's, Rome," in the new rooms of the St. Thomas' Historical Society (President, Mr. H. Belloc), at 19, Eccleston-square (near Victoria Station), on December 13, at 6 p.m. Mrs. Strong, this year's "Rhind Lecturer" in Classical Archæology in Edinburgh (the first woman elected to this lectureship) has just finished delivering in that city a course on "Painting in the Roman Empire"; she has also been lecturing in Oxford and Cambridge and before the Hellenic Society in London on the recently-discovered underground Pagan basilica near the Porta Maggiore in Rome (first century A.D.), which is of such singular importance for the understanding of the development of the early Christian basilica on Roman soil.

Lack of Authority and Foresight. WE have been emphasising at every opportunity that our London alterations and development are piecemeal and haphazard, and have no proper relation to a broad and complete vision of the possibilities. Whatever may have been said in favour of the St. Paul's Bridge scheme, there has been as much or more said against and by those equally competent to judge, and it has never been put forward as part of any far-spreading plan of City development. We think the suggestion of a competition might have advantages if only to call attention to the importance of a wider and better vision of London. But the serious point is that however good our schemes, we lack *the necessary initiative and authority* to create an authoritative aim and determination to carry them out. London Bridge presents a pitiable spectacle of lost opportunities, both about its northern and southern approaches. Our ancestors have laid the foundations for fine effects in a beautiful Gothic cathedral, one of the finest decorative columns in the world, a dignified city hall, and a striking parish church, but all these are belittled and muddled up with commercial buildings and ill-planned railways. We have not yet seriously tackled the railway problem, and yet this stands in the way of the most beautiful and far-reaching improvements.

St. Paul's Bridge. A TIMELY protest against the proposed St. Paul's Bridge has just appeared in the *Daily Chronicle*, and we say timely because, whether one agrees with the scheme or not, it must be recognised that there is a very strong opposition to it, and that it comes from many who are particularly well qualified to judge. It surely ought to be satisfactorily settled whether such a project is wise and right for London before it is fairly begun. That it may provide a large amount of employment for the unemployed is no argument at all, for there are plenty of schemes waiting to do this, and if the Bridge House Estates would earn the largest amount of gratitude and approval we cannot doubt that it would be to build a bridge at Charing Cross. Is not this a moment when the London Society should definitely raise the issue and invite a really authoritative and definite opinion as to the wisdom of building a new bridge at St. Paul's? The Society includes in its membership so large a number of those who count in the world of Art, Business and Politics that it surely might venture to call for a serious consideration of the present position. Let us quote here the following from the *Daily Chronicle*:—

> "But for the City's desire to build the bridge in its own area, no one would dream of selecting such a point. Cannot the City advance now to the wider view? The money is trust money. It is the only source, save the rates, from which new London bridges can be built. Post-war London is much more heavily rated than the London of 1911, and with the depletion of the country's wealth will have great difficulty in financing the erection of necessary bridges. Surely to spend four millions of bridge-money on an unnecessary one cannot be defended in these altered circumstances."

Signs of the Times. WE are all in hopes that the present time is leading us towards better things. It is, therefore, desirable, in order to judge of our prospects, to take note of the signs of the times, some of which are very disquieting. Built with public funds and founded to sustain and promote the welfare of music, the Royal Albert Hall has now become a centre for the chief events of the Prize Ring. The opera house in Kingsway is converted into a cinema. The New Gallery and the Grafton Galleries, not to mention others, once prominent centres of the fine arts and associated with so much that has been important to the welfare of art, have gone the same way. Another theatre is, we believe, now taken over for a similar purpose. Those who believe in the importance of art to life will take note of these tendencies, and we are glad to hear that in the interests of the nation suggestions are being made for a national institution to form a home for the fine arts. Such recognition has much to recommend it lest these high interests should be impaired for purely commercial ends. A good deal of nonsense has been talked decrying fine art and the picture, because there are bad pictures painted, and deprecating the more detached and intimate expression which we associate with it in favour of "arts and crafts." These have their important place, but it is the second, not the first; and while the latter have in the formation of the British Institute of Industrial Art obtained Government recognition, no parallel recognition has as yet been awarded to the fine arts.

Architecture and the Public. WE are glad that the Council of the R.I.B.A. has approved a proposal by the Literature Committee to prepare schemes for popular lectures and other methods of interesting the general public in architecture and the allied arts. We hope the importance of beginning with the public schools will not be overlooked.

The Château of Étrepy. (*See* p. 662.)

GENERAL NEWS.

Professional Announcement.

Mr. Henry T. Hare, F.R.I.B.A., has taken into partnership Mr. Bertram Lisle, A.R.I.B.A., of 7, Observatory-road, East Sheen, and the practice will be carried on at 2, Gray's Inn-square, W.C., as heretofore.

Scientific and Industrial Research.

Sir John F. C. Snell, Member of Council of the Institution of Civil Engineers and Past-President of the Institution of Electrical Engineers, has been appointed by an Order of Council to be a member of the Advisory Council to the Committee of the Privy Council for Scientific and Industrial Research.

Woolwich War Memorial.

Now that it has been settled that the Royal Military Academy is not to be moved from Woolwich, a scheme has been prepared for the erection of a memorial in honour of officers who were educated there, and who fell in the war. The proposed memorial will take the form of a window at the west end of the Academy chapel, composed of a central light representing Peace, and side lights representative of the Royal Artillery and Royal Engineers from their earliest days. The design has been entrusted to Mr. Christopher Whall. The total cost will be about £2,000.

University Press Announcement.

In the preface to a second edition of "Byzantine and Romanesque Architecture," to be published immediately by the Cambridge University Press, Sir Thomas Jackson refers to the many changes which the buildings described in the work have undergone in the last few years: how, for example, the churches of Salonica are now restored to their original rite, though the finest of them, S. Demetrius, has been destroyed by fire. The new edition contains some fresh illustrations, and the author's drawing of S. Sophia, Constantinople, is now reproduced in colour.

Architectural Training.

A MEETING of the Liverpool Branch of the Architects' and Surveyors' Assistants' Professional Union was held at Liverpool last week, when Mr. Lionel B. Budden, M.A., A.R.I.B.A., of the Liverpool School of Architecture, delivered an address on "Architectural Training." He said an architect must be proficient in planning, sanitation and hygiene, design, presentation of design and administration, including legal and financial matters. The old system of training by pupilage, which had begun to fail in its object before the war, had now received its *coup de grace*. An office was primarily concerned with the getting done of building work; its function was not to teach, nor could it possibly have adequate facilities for teaching.

The academic training of the architect, which had been in vogue in France for over 200 years, had now also become universal in America, together with specialisation in design, engineering and the business side of the profession. In this country academic training was only in its infancy, and the full effects of its introduction would not be apparent for a generation. One of the immediate difficulties it had to face was the bridging of the gulf between the school and the office. In the United States the cinematograph had already been brought into use for the teaching of the actual conduct of building operations with very good results.

The Shortage of Bricklayers.

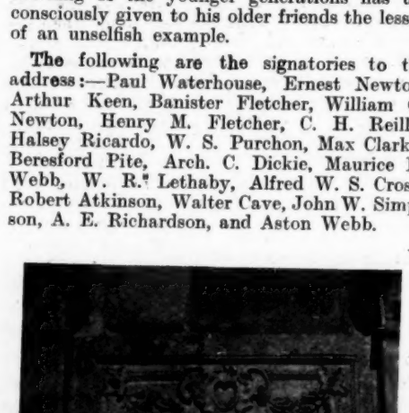
The Report of the Housing Committee to the London County Council this week states: "Building operations are being carried on at the Bellingham, Becontree, Norbury, Old Oak, and Roehampton estates, and at each estate progress is delayed especially on account of the shortage of bricklayers, and, in a lesser degree at present, of carpenters. At least 500 more bricklayers spread over the various sites could be employed forthwith. This number will, however, by no means satisfy the requirements of the next few months. The deficiency in the number of bricklayers seeking employment and for whom work is now available, is very marked. If it could be reduced not only would it then be possible to employ two or three unskilled men for every fresh bricklayer, but an increased number of carpenters and men of other skilled trades could be employed almost immediately."

PRESENTATION TO MR. LEWIS SOLOMON

AT a meeting of the Board of Architectural Education, held on December 3, Mr. Paul Waterhouse (Chairman) presiding, Mr. Lewis Solomon, who for thirty-two years has been identified with the examination work of the R.I.B.A.—first as Examiner and then as Vice-Chairman of the Board—was presented by his old colleagues with a beautifully-illuminated address on the occasion of his retirement from the Vice-Chairmanship of the Board. The address was in the following terms:—

THE MEMBERS OF
THE BOARD OF ARCHITECTURAL EDUCATION
appreciate the long and loyal services rendered
by
MR. LEWIS SOLOMON.
F.R.I.B.A.,
by unanimous vote
on June 30, 1920, offered him THEIR CONGRATULATIONS on the accomplishment of 32 years' continuous connection with the examination system of the Royal Institute of British Architects;
THEIR THANKS for his comradeship during long periods of happy co-operation;
THEIR RECOGNITION of much fruitful labour—unrecorded but not unobserved—and their most CORDIAL WISHES for health and happiness to one who while fostering the teaching of the younger generations has unconsciously given to his older friends the lesson of an unselfish example.

The following are the signatories to the address:—Paul Waterhouse, Ernest Newton, Arthur Keen, Banister Fletcher, William G. Newton, Henry M. Fletcher, C. H. Reilly, Halsey Ricardo, W. S. Purchon, Max Clarke, Beresford Pite, Arch. C. Dickie, Maurice E. Webb, W. R. Lethaby, Alfred W. S. Cross, Robert Atkinson, Walter Cave, John W. Simpson, A. E. Richardson, and Aston Webb.



The Château of Étrepy. (*See p.* 662.)

COMPETITION NEWS.

The Society of Architects.

For list of prizes for competitions during the year 1921 organised by the Society of Architects, see our issue for December 3.

Llandudno.

The conditions of the Llandudno War Memorial Competition have now been approved by the R.I.B.A. and the Society of Architects, and there is no objection to members taking part. The sending-in day has been extended.

"Owen Jones" Prizes.

The Council of the Royal Society of Arts offers six prizes for book production and ornament, ornamental leatherwork, metalwork, wall-papers and textiles. Sending-in day, June 25, 1921. (See our issue for November 26.)

East Ham.

FOR THE EAST HAM HOSPITAL COMMITTEE.—Designs for a general hospital, to cost £40,000. Sending-in day, February 25, 1921. (See our issue for November 5.)

Henry Saxon Snell Prize.

The Henry Saxon Snell Prize (awarded by the Council of the Royal Sanitary Institute) for 1921 will consist of 50 guineas and the Medal of the Institute, and is offered for an Essay on "Suggestions for a System of Central Hot Water Supply and Heating, adapted to Modern Housing Schemes, and to Existing Groups of Houses." Sending-in day, August 31, 1921. Further particulars from the Secretary of the Royal Sanitary Institute, 90, Buckingham Palace-road, S.W.1.

Other Competitions.

The following competitions are also still open:—Public House Competition (sending-in day January 31); Lockerbie War Memorial, January 31; Royal Engineers' Memorial, March 17.

MEETINGS.

FRIDAY, *December* 10.

London Society.—Mr. W. Y. Lewis on "London's Traffic Troubles." At 18, John-street, W.C. 2. 4.30 p.m.

Royal Academy of Arts.—Prize Distribution. 9 p.m.

MONDAY, *December* 13.

Royal Institute of British Architects.—Mr. M. S. Briggs on "Saracenic Architecture in Egypt and Palestine." At 9, Conduit-street, W. 1. 8 p.m.

Surveyors' Institution.—Mr. F. H. A. Hardcastle on "The Work of the Measuring and Quantity Surveyor and the Use and Abuse of Bills of Quantities." At 12, Great George-street, S.W. 1. 8 p.m.

TUESDAY, *December* 14.

Institute of British Decorators.—Mr. J. E. Reid on "Home Decoration." At Painters' Hall, E.C. 4. 7.30 p.m.

WEDNESDAY, *December* 15.

British Museum Lectures on Ancient Architecture.—Sir Banister Fletcher, F.R.I.B.A., on "Greek Theatres, Tombs, Town Planning, and Public Buildings." 4.30 p.m.

Royal Institute of British Architects.—Civic Survey Conference. At 9, Conduit-street, W. 1. 2.30 p.m.

THURSDAY, *December* 16.

Royal Institute of British Architects.—Mr. T. E. Collcutt on "The Improvement of London." At 9, Conduit-street, W. 1. 8 p.m.

Society of Architects.—Mr. H. W. Wills on "The Halls of the Old City Companies." 28, Bedford-square, W.C. 1. 8 p.m.

Concrete Institute.—Mr. H. J. Deane on "Reinforced Concrete in Docks." At 296, Vauxhall Bridge-road, S.W. 1. 7.30 p.m.

THE OFFICE OF WORKS AND ARCHITECTURE.

MR. JOHN W. SIMPSON, President of the Royal Institute of British Architects, writing to *The Times* on the Supplementary Vote of £200,000 passed by the House of Commons last week to enable the Office of Works to carry out housing schemes for local authorities, says the House of Commons, as is clear from reports of the debate, has no liking for this new tentacle thrown out for strangling private enterprise in building. Its astute parent pleaded for his offspring—this "kind of floating balance" of £200,000—the historic excuse that it was "only a very little one" and, apparently, not to cost anybody anything. But he did not explain its creation or the reason for its size, nor did he give any guarantee against its future growth. As, however, he estimates the cost of the scheme at some two millions, we may guess that the £200,000 represents 10 per cent. on that sum. Is that the necessary factor for his present operations? If so, we may expect the "floating balance" to reach a million when he gets fairly to work on 10,000 houses. Out of whose pocket is this money, and its interest, to come? The scheme has one merit which its author modestly omitted to point out; no one will ever know what the houses cost. To local authorities this is but a small matter, since their liability is, as they cheerfully believe, limited to a penny rate. Time may show the fallacy of this belief when the taxpayer comes to the shouldering of a thousand million deficit. But the Ministry of Health is extremely concerned about cost, and the checks and forms by which it seeks to control it are whitening the hair of many a town clerk and housing architect. Are the plans and accounts of the Office of Works to be subjected to the same minute investigation by the Ministry (if so, we may look for another considerable increase of officials), or may we suspect that relief from that harassing supervision is one of the great inducements to local authorities to hand over the whole worry to the uncontrolled Office of Works, and d—— the expense?

Mr. Simpson refers to his statement of April last that cottage building could be carried out almost entirely by labourers (which Dr. Addison dismissed as rubbish), and says we now discover the Office of Works is to employ, not building trade labourers, but men who have no knowledge at all of building trade procedure. Moreover, the employment is to be without the intervention of a contractor, whose profit is limited in housing contracts to a fixed amount, and he declines to believe that anyone—least of all a Government department—can carry out building of any magnitude as cheaply as a skilled and reputable contractor.

The Office of Works—he quotes Sir A. Mond—"is acting in the capacity of architects and contractors." The nature of the "contract" is not stated, but his explanations seem to indicate that it is no more than an "estimate," which may or may not accord with the eventual cost to the local authority. One of the most important duties of an architect is to supervise the work of the contractor and protect the interests of his employer. Will the Office of Works condemn defective work in its own buildings? At whose expense will it be made good?

MR. JOHN SLATER, F.R.I.B.A., also writing to *The Times*, asks if it is in the interest of the art of architecture in this country that so large a part of the design and execution of important buildings should be in the hands of a Government department. The answer is an emphatic No. Under such an arrangement you may get fairly good work but never the best, and the whole tendency is to cramp and deaden the spirit of architecture rather than to widen and vivify it. And what of the architects and assistants on the staff? They may be the veriest geniuses, but they will gain no individual credit for their ability. "The Office" is responsible for everything, and after years of work the staff will be compulsorily retired at the age of 60 or 65, subsequent to which age there are many instances both in the architectural and engineering professions of a man's best work being done. In the interest of the Mistress Art itself, and of the many well-trained young architects who are just commencing practice, he protests against the obvious tendency of the Office of Works to monopolise official architecture in this country.

"THE TIMES," in a leading article, states that the sum involved (£200,000) was limited, but the principle behind it is susceptible of indefinite and dangerous expansion. The real point is that the Office of Works has charge of public buildings, and is going outside its functions when it proceeds to act as agent for various local authorities by building houses. Sir Alfred Mond alleges that he can build more cheaply than private contractors. The whole experience of the war suggests the contrary, and it is not to be believed than any Government department will ever be a cheap substitute for private enterprise properly controlled. The essence of the issue are the overhead charges. In the architectural branch alone the Department now commands the services of 184 architectural specialists, as compared with 126 in 1913–14. In addition to these and many other officials he has budgeted for £75,000 for "draughtsmen and technical assistants," as compared with £30,000 last year. No wonder he wants to find work for this army of officials, and to act as "agent" for local authorities. Sir Alfred Mond aspires to build 10,000 houses for local authorities at a cost of £10,000,000, or an average of £1,000 apiece. If the Office of Works can undertake this huge task in addition to its normal duties, the inference is that it is grossly overstaffed, which we believe to be the true explanation. There has seldom been a more glaring instance of a department eagerly seeking fresh work in order to justify its pay-roll.

"THE MORNING POST" predicts that the day will come, and before very long, when the Government will bitterly regret that it permitted the Office of Works to serve as architects and builders to local authorities. The fatal concession on Wednesday (last week) is the beginning of the nationalisation of building under the Office of Works. The real purpose is to save the Ministry of Health from a part at least of the disasters menacing that incompetent department, and (above all) to extend and to confirm the importance and the power of the Office of Works. The country, which is paying incalculable millions for the Government housing scheme, has at least the right to demand good design. Will Sir Alfred Mond assert that the most gifted men in the architectural profession are officials of the Office of Works? In allowing the Office of Works to take on work for which it was never intended, and which paralyses private enterprise, the Government is deliberately spending millions of public money without any guarantee of good design, sound workmanship, or financial control.

[Some notes on the discussion in the House of Commons are given on p. 671.]

International Building Exhibition.

An International Architectural, Building and Allied Trades Exhibition is to be held at the Palais des Fêtes and Parc, Ghent, during April and June, 1921. The Exhibition is being organised under the auspices of the Belgian Government and the Municipality of Ghent, and Prince Leopold of Belgium is one of the Patrons. Arrangements have already been made for British, French, Dutch, Swiss and other nations to be represented. The Belgian National Federation of Building and Public Works has decided to hold its annual congress at Ghent in May next, in order to coincide with the occasion of the Exhibition. Full particulars regarding the Exhibition may be obtained from the Secretary, Coupure 15, Ghent.

"LUXURY" BUILDING AND PERSONAL LIBERTY.

WE quote the following from a leading article in *The Times* on the Ministry of Health (Miscellaneous Provisions) Bill:—

"The House should also give attention to Clause 3, to which Dr. Addison succeeded in adding in Committee an amendment embodying a principle which is probably without modern precedent in British legislation. We have called it 'an amazing infringement of personal liberty,' and it is nothing less, for it is a clause to prevent industrial workers from selling their labour in the best market. The amendment provides that the construction of 'any works or buildings' may be prohibited if the workmen employed thereon are being paid wages in excess of the rate 'commonly recognized by employers and trade societies in the district.' Only the veriest tyro in legislation could have dreamed of introducing so vicious a clause, and it is astonishing that some short-sighted Labour members voted for it, though others sensibly opposed. The test whether a building is a 'luxury' building or not is surely the character of the building itself, not the rate of wages paid. Powers to stop 'luxury' buildings already exist. If they do not suffice, they can be increased; but any Labour member who wants to stop workmen from getting the best possible price for their work must be cherishing the warped ideals of the 'dead level' beloved by Communists."

Ripon Cathedral Memorial.

An appeal is being made for further funds towards the cost of the erection of a reredos in the choir of Ripon Cathedral, as a war memorial. The architect for the reredos is Mr. J. N. Cowper. Of the total sum of £4,000 required, £3,200 has been subscribed.

Design for a Village Sign.
By MR. HAROLD COOP.

[The village chosen for this sign is Eagle, Lincolnshire, which was at one time a hostel for the Knights Templars and eventually for the Knights Hospitallers, as shown on the arms at the top of the panel. The arms below are on the front, Rutland, and on the back, Tyrwhit. The whole is intended to be carried out in oak, the centre panel to be white with painted ornament. The base is of stone, diagonal in shape, and the sign is supported by a hexagonal oak shaft.]

CORRESPONDENCE.

Sic(k) Transit Gloria Mundi.

SIR,—In turning over the dusty tomes of antiquity I have found a precedent which has caused me much alleviation, and I hasten to share my discovery.

I had been a shade uneasy over this archi-medico mixture. It needed much shaking before taking, and salt in large pinches has been consumed in the process. But I now find that Apollo also was the god of medicine, divination and poetry; and he, too, presided over the Muses, who in their turn presided over the liberal arts and sciences. So that no one was overlooked. Now, this is a very soothing thought. Of course, those jolly old Romans did have rather a nasty jolt at the end, didn't they? But don't let's think about that. "*Quem deus vult perdere, prius dementat*," they said; and they seem to have been right. So perhaps it's not so bad after all. We shall all go mad together, and perhaps asylums might have been better than hospitals. But then—who cares? H. BRYANT NEWBOLD.

"The Only Way."

SIR,—The concluding paragraph of "F. N. R.'s" letter in your issue for the 3rd instant is strikingly confirmed by a job which has come under my notice lately. The work consists of modernising a block of old stone cottages, and is of the type for which, as every architect knows, no drawings can be completely followed owing to difficulties and other matters which are only to be discovered when the work of pulling down is being carried out.

In this particular case the working foreman is in sole charge, direct labour being employed owing to the high tenders received from the builders, and beyond small scale drawings and a specification his instructions were to adopt local methods and use his own judgment, and when necessary to consult the estate agent and the architect. The result is that the work is being extremely well done, the variations suggested by the foreman have been good, and at the present rate of progress the cost will work out at a trifle over half the lowest tender!

Why? First, because the foreman and those under him are keen, as well as competent at their respective jobs, and keenness is a *sine qua non* to good work and good output. Second, each man, being keen, uses his brain to the best advantage, and muscle without brain is not of much use. Third, because all those employed on the job are non-trade union men, and so are free to be keen and to use their brains. In other words, they have personal incentive and individuality, which, as you so correctly pointed out, since it is a fact, in your leading article for November 19, present-day trade unionism is killing, or has killed.

"The Only Way"! It is perfectly clear, not only in the building trades, but in all trades. The only way to better days is for the operatives to get back at once to the pre-war output. Their wages have been increased enormously, and rightly so, but their output has decreased to at least a half of the pre-war standard. It takes a very fine type of man to produce the pre-war output, when the indifferent, the bad, and the slack men in his trade get the same wages for doing the minimum amount of work. The wages of the skilled man cannot be raised, because with those others having to be employed owing to the shortage of labour, and having to be paid a high wage which they don't earn, and possibly could not earn, the cost of building is at its maximum, and any increase in wages would be to force most builders and architects to shut down. Even as it is, in almost every architect's office an inquirer could hear of jobs either postponed or abandoned by the would-be owner owing to the excessive cost. So an increase of wage, which will put him at a proportionately higher rate than his less skilled and keen fellow-workman, can only be obtained by the skilled man by getting back to the pre-war output himself, and either persuading the others to do the same or forcing them to do so by striking the shackles of present-day trade unionism from his ankles. Dilution would help him to do so very much later on when the housing schemes are practically finished, for then there would be a little competition for work, and so an increased output, though the skilled, keen man would never suffer through dilution.

It seems too much to hope that trade unionism will return of its own accord to its earlier objects, *i.e.*, of obtaining a reasonable minimum wage for workmen while leaving the keen men free to do their best and so get better wages according to that best So increased output is the "only way," and the sooner the skilled man realises this fact, and the way to make it get going, the sooner he will reach that position in life, in comparison with his fellow-workmen, to which his skill and keenness would entitle him. It does not matter to what political party he may belong, or whether, like the writer, he has no great leanings to any, for trade unionism isn't, or shouldn't be, political.

As things are, however, an onlooker is tempted to remind all operatives that "honesty is the best policy." They have been given the high wages, let them give a corresponding output in return. The miners are doing so now, apparently!

R. D. SHIRLEY.

City Churches.

SIR,—Some confusion seems to have occurred in the latter of the two lists attached to my report to the Commission on this question, published in your last issue, and which I have only just noticed. The list which attempts to place the churches in the order of their architectural value was not intended to make any distinctionbetween the church and its tower, except in so far as that distinction was already drawn in the classification which accompanied my original report, *i.e.*, the cases of St. Botolph, Aldgate, St. Dunstan-in-the-East, St. Dunstan-in-the-West, St. Alphage, and All Hallows, London Wall.

W. E. RILEY.

Appointments Abroad.

SIR,—May I again trespass on your columns to warn those members of the profession contemplating taking up positions anywhere outside the United Kingdom? It does not follow that every such position is no good, many of them, of course, being very valuable, but it is most vital that everyone contemplating such should obtain the very best advice possible beforehand. My Union has collected a file of information from members and others, though much more would be welcome, and will give all advice possible, and I have no doubt the professional institutes would also be only too willing to advise their members.

Recently I have had complaints from Singapore, India, and other places, which, being rather limited as to the size of their professional staffs, might lead to victimisation if I named them. There are one or two points worth making public:—

(1) The written agreement of any Government, public body, firm or individual requires very careful consideration before being signed.

(2) It seems doubtful whether contracts made in this country are legally binding abroad, even in some of our own little colonies.

(3) The shilling in Britain, the rupee in India and the Eastern dollar seem to have much the same purchasing power; rate of exchange should never be taken into consideration when the salary is not stated in sterling.

(4) A wife should never go out with her husband at first, but should follow if he finds conditions satisfactory.

(5) Most salaries abroad will be found to be suitable only for bachelors.

(6) Future promotion should not be overlooked. A man in the jungle is not usually on the spot for the next preferment that offers, and it is usually filled from home.

(7) There is no place for the poor white man where the white man only maintains his footing by real or assumed social superiority.

(8) Duration of life in an unsuitable climate.

I have just had a chat with an ex-officer who went out East with his wife. At the end of five months he has returned with the loss of nearly £400 capital and his wife's health ruined, because it is more profitable to live in this country without a job than it was to live there on his salary, and that looked a lot in l. s. d. It is usually only traders that make money; every penny earned by the professional man is usually every penny spent.

CHAS. MCLACHLAN,
Hon. General Secretary,
Architects' and Surveyors' Assistants' Professional Union,
33, Tothill-street, S.W. 1.

£100 Challenge to any Large London Building Contractor.

SIR,—I am a small building contractor, and have only eight men left upon a contract which I am just finishing, viz., one bricklayer, two navvies, two carpenters, and three plasterers. Last week my only bricklayer laid 650 bricks in 5½ hours in blocking up an opening about 8 ft. by 4 ft. of 14-in. work (Flettons inside, stocks out), including pointing the stocks and toothing and bonding into old work built in cement and sand flushed each course under supervision of H.M.O. of W. clerk of works. I will back my bricklayer to lay more bricks in eight hours than any other. I will likewise back my two navvies to shift and wheel more muck than others—they are both over 55 years of age, but I should be very disappointed if they could not dig and throw up 6 ft. deep at least 10 yards per day; also I will back my two carpenters to hang eight 2 ft. 6 in. by 6 ft. 6 in. doors in eight hours. I am willing to arrange separate terms for my painters, who work pre-war speed.

Will any London contractor back his men against mine? Half the money to be given to the workman who wins and half to an institution where ex-Service men are trained. Dr. Addison, or a competent practical surveyor appointed by him or by the President of the Master Builders' Association, to be the judge of the quality of the work done.

I have not written this challenge in any self-advertising sense, as in view of the present state of labour and the material market, and not being able to estimate a workman's or manufacturer's conscience, I can no longer compete for work, so that I have only three courses open to me: (1) to retire; (2) to continue taking contracts for fixed amounts and go broke; or (3) to take work on a percentage basis. I cannot get the last, so I am shutting down.

Please do not publish my name at present. I do not want my men to get known.

If, Sir, you can arrange for me to meet any contractor who is willing to take up my challenge, I shall be very pleased, and perhaps you would not mind being stakeholder. And if it is proved that a man can easily lay without undue exertion 1,000 to 1,200 bricks per day, against the 300 which is the usual amount nowadays, then the trade unions might be induced to make their badge a badge of efficiency, and refuse to admit to their membership slackers and incompetent workmen. The standard of the trade unions thus being raised, every employer would recognise it was good for the trade of the country that only trade unionists should be employed; and every trade union leader would realise that, goods being produced more cheaply and selling more in consequence at home and abroad, it was due to them and the higher standard of trade unionism that there should be work for all.

"A LONDON BUILDER."

[We do not expect this challenge will be taken up, but it is some evidence that there are still building trade operatives and labourers whose output is at least equal to the pre-war level. The reason which our correspondent gives for not wishing his name to be published is significant. The same reason was recently given by another builder whose bricklayers are laying 1,000 bricks a day and who was asked publicly to announce this.—ED.]

[Other letters are unavoidably held over.—ED.]

EXHIBITION NOTES.

THE ROYAL SOCIETY OF BRITISH SCULPTORS.

If the collection of sculpture at the Fine Art Society's does not make an exhibition of much importance or dignity for a Royal Society of Sculptors, it is nevertheless extremely interesting and attractive. All the pieces are small but some of them have really the right treatment for their size, whilst in some cases where they have been reduced from larger works the result is not so good. There is enough of Mr. Reid Dick's work here to justify the high opinion which has been entertained for it in recent years. Mr. Gilbert Bayes again stands on firm ground with his true decorative instinct. The stooping figure of the Greek dancer encircled by her hoop is a kind of thing we should like to see more of, for it attracts one both by its daintiness and vigour. It does not follow that the interest a piece of sculpture may excite is dependent on its sheer quality of form and modelling, but we do find subjects which make their entire claim on their inherent beauty. The interest which is compelled by the mask of an old man, by Mr. Reid Dick, is certainly a very different thing from the fine quality of modelling and composition which gives his "Mother and Child" a charm quite apart from its human interest. In his "Age," Mr. Reynolds Stephens glorifies decay by the fine dignity of outline and modelling which would always produce a feeling of reposeful charm. He is very successful in his dainty little bust of "Youth," a bust of a little girl effectively placed on an elongated pedestal; it is vivid with life. The "Hebe" of John Angel is an attractive bit of work. There are enough subjects of refinement and charm in the exhibition, such as the mask of Margaret Sheridan, and the "Joan" of Mr. Reid Dick, and the sedate appeal of the "Dutch Maiden," and "Il Bacchante," by F. J. Halnon, to form pleasant foils to the more dramatic quality of other subjects. We do not feel that the bulk of our sculptors' work is on the best lines, though much of it is able enough; we suppose there is a lack of inspiration and enthusiasm, but we do feel all the time that when sculpture becomes picturesque, dramatic, and too natural it loses its value for us, and we are glad to feel that the need for a decorative and steadying quality is becoming more accepted by our English sculptors

THE BURLINGTON FINE ARTS CLUB.

There could be no more pleasing picture of an interior in London than that presented at the reception of the Burlington Fine Arts Club on Monday night, which drew a large number of visitors to give life to the gallery so admirably decorated with pictures and English furniture of the Chippendale period. The present exhibition of furniture owes much to the softness and breadth of colour which the old pictures give. There may be finer or more interesting individual pieces to be found, but the combined effect of pictures and furniture affords a very distinctive value. The charm of the old Fulham tapestry is realised in the covering of some of the pieces, and there are many delightful decorative vases, bowls, &c., which show how harmonious the subsidiary decorations in a room may be. It would be difficult to particularise amongst so much that is good, but special note might be made of Col. Mulliner's fine wardrobe, designed by Chippendale, placed in the recess in the east wall. This measures 5 ft. 8 in. high by 4 ft. 8 in. wide. The upper portion, enclosed by two doors, is square in shape and the lower portion is of bombé shape with drawers; the whole effect is bold and distinguished. The pictures include subjects by Van Eyck, Rembrandt, Sir Joshua Reynolds, Cuyp, Gainsborough, Raeburn, Van der Velde, and de Witte.

MESSRS. BROMHEAD, CUTTS & CO.

There is a freshness and spontaneity and variety about the etched work of Col. Buchanan which should command a ready appreciation. It has been going on for some 20 years and done, we believe, in the interludes of farming. We are glad to note the limitations of prices, such as, for instance, a charming little plate of Rye for one guinea, and only two guineas for that of Le Mont des Cats, which we illustrate (p. 654). Of his four etchings of Ypres, one has a very telling dramatic quality with a shell bursting behind the ruins. The artist was a colonel in the Regular Army and served through the war. The little plate, "Venice, from Maistre," is a souvenir during his service in Italy. The Land's End near "The Longships" shows what immense distance values he can achieve. This is the first public exhibition of this artist's work; we hope it will not be the last.

The Building Guilds.

At a conference of building trades operatives, held at Newcastle-on-Tyne last week, a resolution was passed, expressing approval of the Building Guild principle, and pledging its support and recommending the immediate organisation of the building industry in the Tyne and Blyth area on Guild lines. Mr. Hobson, the manager of the Manchester Building Guild, said his organisation had at present over two million pounds' worth of work in hand.

IN MEMORY
OF MEMBERS OF THE SOCIETY OF ARCHITECTS
WHO FELL IN THE GREAT WAR
1914 — 1918
BARKER T C August 4th 1917
BAXTER A C January 24th 1916
BURDEN C E October 14th 1917
CAREY J October 27th 1914
CHESTERTON P S November 11th 1916
DAVIES R C May 5th 1917
EMERY B J November 5th 1915
EVANS D September 14th 1916
FOGG T H April 4th 1918
HASLAM J November 30th 1917
HEDLEY G M (M C, Order of the Crown of Italy) November 16th 1918
HILL W J 1916
HUDSON C H May 16th 1915
JANE W May 24th 1918
KING F C October 1916
KOHLER H 1917
LANGFORD B November 11th 1917
LAW C O January 29th 1916
LE GROVE W April 24th 1918
TIMMINS E May 3rd 1917
TURNER T E May 9th 1915
WINCH A July 1st 1916
YOUNG A C December 1916
LINES R W June 1917
MARLEY W H 1915
MARSHALL S J August 8th 1918
METTHAM J A November 12th 1918
NORMAN E J March 30th 1918
PETERS K February 2nd 1916
REBBECK W (M C) 1918
RICHARDSON R H November 1917
SCOTT T March 1917
SUTHERLAND G A July 1918

Society of Architects War Memorial. MESSRS. POYNTER AND WENYON, Architects.

[This memorial was unveiled on the Society's premises on November 11. The work was executed by Messrs. H. H. Martyn, Ltd.]

LIBRARY ARCHITECTURE.

IN the course of a lecture on library architecture, at the Bartlett School of Architecture, on Monday last, Professor A. E. Richardson, F.R.I.B.A., said the designing of libraries, without exception, fell within the province of general practice. There were so-called specialists for this type of building, but it should be understood that designers were merely interpreters of given conditions, and that the success of a library as an entity depended largely upon close collaboration between librarian and architect.

After a general survey of the history of libraries, he said libraries were to-day considered mainly from the standpoint of efficiency. Their arrangement had to be on scientific lines, and the cataloguing, grouping, circulation, working, heating, cleaning and safeguarding had to be determined by the conditions of site and locality and the tastes and needs of the readers. At the close of the seventeenth century a standardised type of collegiate library had been evolved by Sir Christopher Wren. That was encountered in the remodelled library of Trinity College, Dublin, built in the first half of the eighteenth century. The Radclyffe Library at Oxford broke away from all the previous (or quasi-mediæval) traditions. This building, although novel in conception and partly determined by the revived interest of the day in Roman architecture, could not be said to be wholly successful, as considerable space was lost for storage and study.

Throughout the eighteenth century the design of libraries received attention from architects, college authorities, and private collectors. The long gallery of Elizabeth's day in time gave place to the panelled library in the country mansion, and there was a choice of examples ranging from the works of Sir Christopher Wren to the ornate rooms designed by the brothers Adam for the use of their fastidious clients, many of whom collected books merely for the bindings and titles. Perhaps the library reading room having claim to the best architectural disposition in the United Kingdom was that connected with the British Museum, which resulted from collaboration between the most famous of librarians, Sir Anthony Panizzi, and Sidney Smirke, the architect. When Sir Robert Smirke designed the British Museum the internal quadrangle was left open, but in 1857 the idea of a circular reading-room was realised, Sidney Smirke being the architect. The room was 140 ft. in diameter and 120 ft. high. Other famous libraries of the early nineteenth century included the London Institution, Finsbury-circus, by Brooks, that of Lincoln's Inn, by G. Phillip Hardwick, and the library of University College, designed by Professor Donaldson.

In discussing English library architecture, it was essential to consider the period that made possible the public libraries of succeeding times. The early years of the eighteenth century in literature were regarded as the age of good sense, but the need for libraries accessible to the public had not become apparent. Classicism in art and literature at this date had become completely naturalised. The classification of the eighteenth-century building was always tempered by a humane sense of proportion and, until the latter days, a dislike of pedantry. In the late eighteenth century every doctor, lawyer, architect, and county squire could boast a miniature library. The taste of the successful architect of that day could be seen in the arrangement at Sir John Soane's house, Lincoln's Inn-fields, and for a more ornate library Napoleon's study at Malmaison could be turned to.

During the past quarter-of-a-century there had arisen a vast number of small public libraries, not only in London but in almost every provincial city and town. The programme in the majority of such examples read as follows:—(1) Lending library, borrowers' hall; (2) reference room and magazines; (3) newspaper room; (4) juvenile room; (5) store; (6) librarian's room; (7) staff room; (8) staff lavatories. The library at Kettering was a typical example of good planning.

Principles of Library Planning.

After referring to the great libraries in other countries, the lecturer dealt with the principles of library planning. Library buildings, he said, fell roughly into two main groupings, the large and the small. This divisioning implied not only contrasts in size but in function. The large meant those comprising under one roof numerous functions and extraordinary services calling for a special type of complex plan. The small, on the other hand, implied simplicity of function, direct organisation, simple plans and the minimum of staff. Libraries from the architect's point of view were buildings for bringing books and readers together. That implied accommodation for the books, and accommodation for the readers, governed by accommodation for the staff. Accessories, such as galleries for pictures and objects of art, museums, studios, and lecture theatres should, as far as possible, be avoided; they tended to negative the original purpose of a library and add further complexity to the plans. The following accessories, however, must be considered:—A heating plant, stairs at convenient parts, lifts for books, vestibules, draught screen, toilet rooms, good staff room, and comfort.

The chief requirement in the art of library design was the arrangement of the accommodation in such perfection that the books would be transferred from the shelf to the reader in the shortest possible time with the least trouble and exertion. When books were stored in stacks, forming tiers of shelves in stories not more than 7 ft. 6 in. high, the stacks should be set as close together as convenience would allow in a wing or structure quite distinct from the reading room. In modern American design, where the stack rooms were on an enormous scale, the stack room was separated by fireproof walls and doors from the rest of the building. The stacks were metal structures, independent of the walls of the buildings. This system of storage in stacks had been developed in America to a high degree of efficiency. The standards forming the stacks were built up from a concrete raft covering the whole of the basement floor, of such thickness and reinforcement as to guard against cracking. The standards consisted of stanchions with every piece framed together by a light system of steel work at each level to stiffen the independent structure and to support the decks. The dimensions in the clear space between the decks should never exceed 7 ft. to 7 ft. 6 in. The shelves were of metal; wood should not be used. The decks should be of ¾ in. glass or 2 in. marble, sufficiently strong to support a deck load on occasion of at least 1½ cwt. per foot super. The stack system was of special value where a large number of books had to be stored in a restricted space Stock rooms must be thoroughly lighted, and that raised the difficulty of side windows, resulting in loss of space. Theorists, to-day, inclined towards artificial lighting for stock rooms.

Accommodation for readers comprised three principal features: (1) Reading room; (2) card catalogues; (3) delivery desk—the connecting link between the books in store and the waiting reader. The correct placing of the delivery desk was essential to good planning; it must be well lighted by natural means.

Reading rooms comprised (1) General reading rooms; (2) reference rooms; (3) magazine or periodical rooms; (4) special rooms for fiction, history, art books, technical branches, &c.; (5) special study rooms; (6) children's rooms; and (7) conference rooms for college libraries. Reading rooms demanded special treatment according to their relative importance, location, equipment and other factors. Any recognised geometrical shape would do, providing good lighting and perfect service were secured. A large reading room should be extremely simple. There should be few columns, deep alcoves, or unnecessary projections. Circular and octagonal rooms were quite permissible, in spite of protests to the contrary. Where the alcove or open shelf system pertained, such circular rooms could be made architecturally imposing. There was a monumentality about the interior of the Radclyffe Library, at Oxford, the British Museum Reading Room, in London, the Congressional Library, at Washington, and the Columbia University Library.

The most important fundamental consideration in the form of the reading room was its lighting. If lighted from one side its width should not be more than 50 to 60 per cent. greater than its height to the top of the windows. The high light counted in lighting the further parts of a room. The width should be 1½ times the height from the floor to the top of the ceiling. Windows might have sills 4½ or even 5 ft. from the floor in a room of 14 to 15 ft. clear height. That allowed of wall cases 3½ to 4½ ft. high continuously along the window wall in open shelf rooms. A reading room lighted on both sides might be 30 or more feet wide, with a height of 15 ft. Skylights might be resorted to, but that was a method not altogether successful; it should never be the sole means of lighting when side lighting was possible.

Reading rooms should be planned as near as possible to the stack rooms. If the reading room was used partly as a store room, with alcoves or a gallery, the room must be controlled from the central desk and provision should be made to ensure adequate visual control.

Accommodation for the staff comprised, in general:—(1) Office for the librarians and assistants; (2) catalogue room or rooms; (3) rooms for special services; (4) rooms for repairs; (5) dining and recreation room for the staff; (6) caretaker's quarters; (7) store rooms; and (8) committee rooms. The general principles were:—Good lighting, easy access (circulation), the avoidance of inconvenient corridors, &c.

The determining factors in library design were (1) The choice of an eligible site; (2) the arranging of a definite programme of the accommodation as fully in detail as possible, which should form the joint work of the library expert and an architect of experience in such matters; and (3) cost; to aim at approximate cost, figure up the total cubic contents and multiply the sum by the current cost per cubic foot for buildings of like character at current rates per foot cube.

Solidity of construction was to be preferred to mere architectural splendour; scale, good planning and proportion, to tawdry ornamentation. Libraries must be built fireproof. The elementary principles of library design might be enumerated as follows: (*a*) A good preliminary idea of the project; (*b*) a good plan allowing for expansion in the future; (*c*) economy in working; (*d*) easy supervision; (*e*) direct architectural statement and absence of ornament; (*f*) good natural lighting; windows to underside of ceilings; (*g*) in a book or stack room windows should be opposite the aisles; (*h*) staircases to be in straight flights; circular staircases to be avoided; (*i*) the main floor to be as near as possible to the street level; (*j*) rooms and offices open to the public should be arranged so as to be easily and obviously accessible; (*k*) corridors should be short, straight and direct; stairs should be easy and not too wide. Simplicity should be the keynote of the planning.

Cunard Company's London Offices.

The Cunard Steamship Co. has completed the purchase from the London County Council of Nos. 26 and 27, Cockspur-street, known as Sidney House. The capital value of the deal is approximately £300,000, and the premises, which are now partly in the occupation of the County Council, are to be converted into London offices by the company.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

Election of Members.

AT a General (Business) Meeting of the Royal Institute of British Architects, held at 9, Conduit-street, W. 1, on November 29, the following candidates were elected:—

As FELLOWS.

T. F. Green.

And the following Licentiates who had passed the qualifying examination:—

J. A. Arnott, Edinburgh.
W. Bond, Grantham.
S. G. Hewitt, Liverpool.
G. W. Lord, Sudan.
W. F. Slater, Burslem.
W. C. C. Smith.
D. Thomson.
W. N. Twist, Birmingham.

As ASSOCIATES.

A. Ashton, St. Anne's-on-Sea.
V. Bain, Leeds.
W. A. Banks, Stafford.
W. A. Batty, Leeds.
F. I'A. Bloomfield, Sydney.
C. F. Boniface, Petersfield.
A. Bracewell, Keighley.
J. Burford, London.
H. Butterworth, Manchester.
R. W. Cable, Bombay.
D. A. Campbell, Liverpool.
H. R. Chanter.
G. E. Charlewood, Newcastle-on-Tyne.
G. R. Clayton, Blackburn.
F. E. Crutchley.
J. P. W. Davies, India.
J. Elston.
J. P. Firth, Wakefield.
B. George, London.
E. W. Gisby, Kuala Lumpur.
H. F. Gossling, Croydon.
C. Greenwell, Sydney.
H. V. Hague, Derby.
T. C. Hardy, Ohio.
H. J. Higgs.
C. O. Hooper, China.
W. Ingham, Beverley.
W. H. Jones.
A. B. B. Jopling, Hull.
G. S. Keesing, Sydney.
A. J. Knott, Bristol.
J. McNicol, Stockton-on-Tees.
P. May.
H. T. Morgan.
D. J. Moss.
A. J. Palmer, New Zealand.
S. Pool.
N. A. Rew.
S. N. Rickard, Sydney.
R. L. Rollo, Aberdeen.
T. A. Sanders, Southport.
H. G. Satchell.
S. B. Seabrook.
T. A. Skinner, Bristol.
W. J. Smith, Glasgow.
H. A. Symington, Narborough.
A. P. Thomas, Bridgend.
A. Thorpe
G. Unsworth, Petersfield.
J. V. Menters, Glasgow.
H. A. Welch, Huddersfield.
H. G. Wicks, Birmingham.
T. L. Wills.
G. G. Winbourne.
C. W. Wood, Christchurch, N.Z.

Civic Survey Conference.

In conjunction with the Garden Cities and Town-Planning Association, the Royal Institute of British Architects has arranged for a Civic Survey Conference to be held at 9, Conduit-street, W. 1, on December 15, at 2.30 p.m. The Rt. Hon. the Earl of Plymouth will be in the chair: and short addresses will be delivered by Professor P. Abercrombie, Professor S. D. Adshead, Mr. Raymond Unwin, and Mr. G. L. Pepler. The Civic Survey Exhibition will be re-opened on that date, and will remain open (free to the public) until December 31, when it will be finally closed.

Proceedings of the Council.

THE R.I.B.A. EXAMINATIONS.—On the recommendation of the Board of Architectural Education, it was decided to empower the Overseas Allied Societies to conduct the Intermediate and Final Examinations of the Royal Institute once a year. The first of these examinations will be held at Sydney by the Institute of Architects of New South Wales.

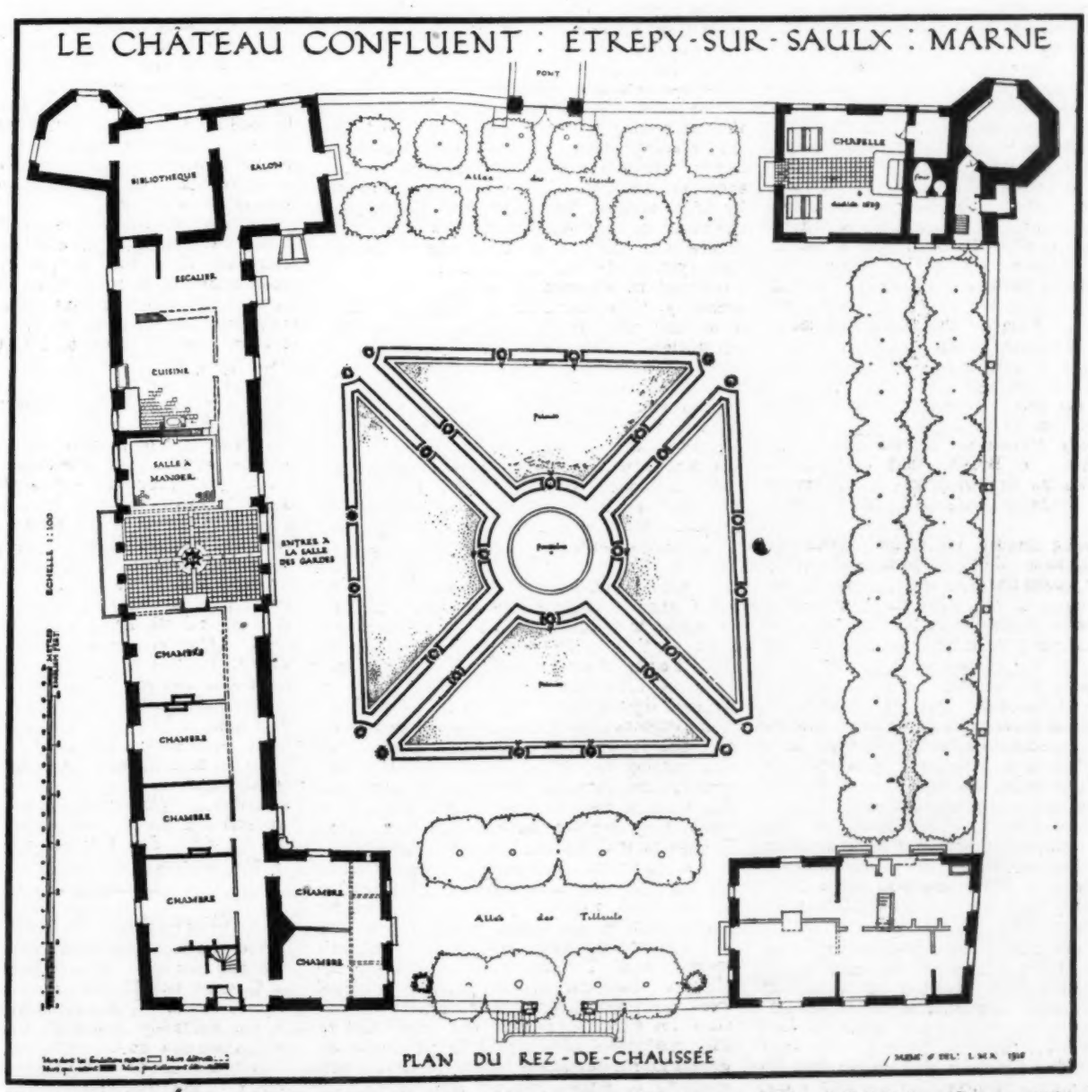
HONORARY MEMBERSHIP OF THE R.I.B.A.—Monsieur Louvet (President of the Société des Architectes Diplômés par le Gouvernement) has been nominated by the Council for election as an Honorary Corresponding Member, in place of Monsieur S. L. Bernier, deceased. Mr. W. T. Plume (Editor of *The Builder*) has been nominated by the Council for election as an Honorary Associate.

THE MINISTRY OF HEALTH AND FEES FOR HOUSING.—At the invitation of the Ministry of Health, the Council has consented to re-open negotiations with regard to the agreed scale of fees for housing work.

LITERATURE STANDING COMMITTEE.—The Council has approved a proposal by the Literature Committee to prepare schemes for popular lectures, pamphlets and other methods of interesting the general public in architecture and the allied arts.

THE SHORTAGE OF CEMENT.—The Council is taking steps to call the attention of the Government to the causes of the shortage of Portland cement.

CONJOINT BOARD OF SCIENTIFIC SOCIETIES.—Mr. H. D. Searles-Wood has been re-appointed as the representative of the Royal Institute.



The Château of Étrepy.—Measured and drawn by MR. LAURENCE M. ANGUS. M.A., A.R.I.B.A. (*See page* 662.)

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ILLUSTRATIONS.

R.I.B.A. War Memorial.

We illustrate this week the design by Mr. Trenwith Wills, A.R.I.B.A., for a war memorial to be erected at 9, Conduit-street, in memory of the members of the Royal Institute of British Architects who fell in the war. This design was placed first in the recent competition, which was limited to members of the Royal Institute who served in the war. The erection of the memorial from this design is about to be put in hand, and the Institute desires to be acquainted with the names of any members which are likely to be omitted from the Roll of Honour, as it is desired to have this as complete as possible.

The Fishmongers' Company.

The illustrations of Fishmongers' Hall are given in connection with the article on p. 666.

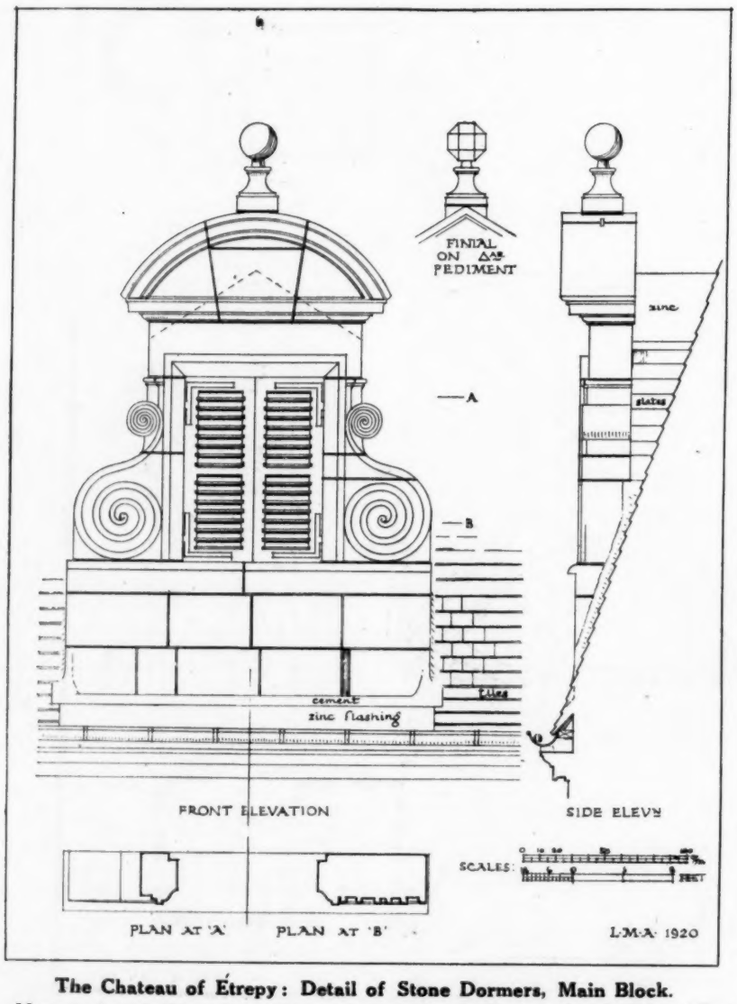
THE CHÂTEAU OF ÉTREPY, MARNE, FRANCE.

THE village of Étrepy, whose château is illustrated this week, is a typical little Champagne village in the district of Vitry-le-François, and, like many of its neighbours, suffered severely in the first Battle of the Marne in September, 1914. As will be seen from the block plan, only the church and one or two of the farmhouses (shown in solid black) remained standing among the ashes of what must have been a very picturesque little street of grey half-timbered houses winding gently up-hill from the château on the river bank towards the wide-spreading plateau of Perthois. History was only repeating itself after three centuries of respite. Since the days when Vandals and Huns ravaged the country until their decisive defeat somewhere in the neighbourhood in the fifth century, this land has suffered from recurring disorders. At what period a fortification first appeared at Étrepy is not recorded. During the reign of Brunhildis, Queen of the eastern Kingdom of Metz, in the sixth century, whose memory is preserved in its application to many roads and castles, some efforts were made to consolidate the district of Perthois against the west by the erection of fortresses along the River Saulx. If one of these was situated at Étrepy, it no doubt took its share in the repression of disorders in the wider kingdom of Charlemagne, only to experience further disasters when, during the disputes among the later Carolovingians, Norman raiders penetrated into Champagne by way of the Aisne and Meuse, pillaging villages and abbeys. These ravages helped to favour the growth in power of the feudal "seigneurs," and Etrepy became a *maison forte* protected by a triple entrenchment, of which traces of two moats remain. In the struggle between the early Capet Kings and the "Seigneurs," Étrepy was under homage to the Duchy of Perthois, which eventually made its peace with the Ile de France in 1284. At what state the Château had by this time arrived we do not know; the remaining portions of old wall are too scanty to afford much data. The church was begun at this time, but its beautiful eastern apse and square massive tower are in the main the work of the fourteenth century.

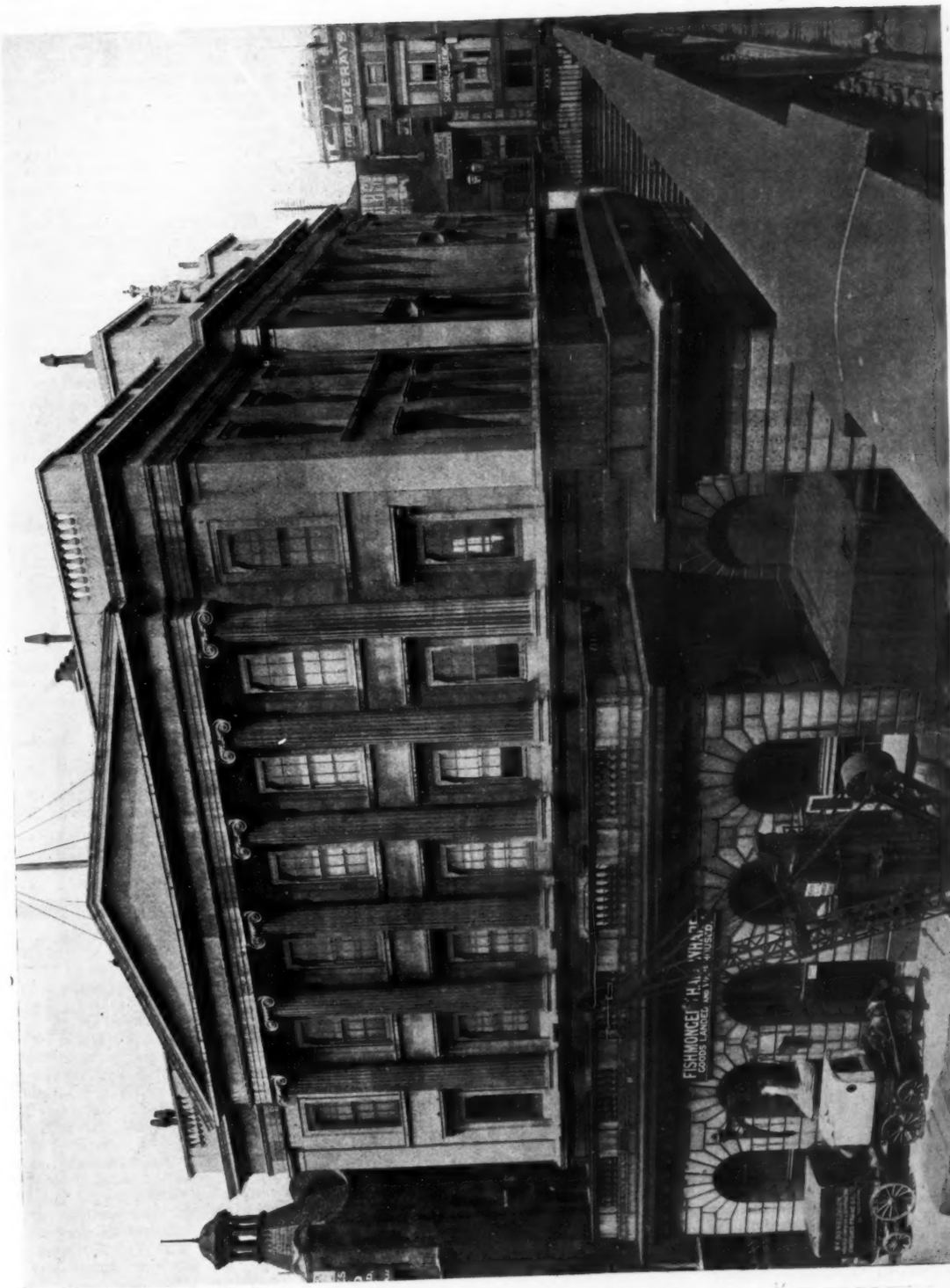
The hardships of the Hundred Years' War were very greatly felt in Champagne, which remained for some time in the power of companies of adventurers, French and English. The armies avoided pitched battles; but all the fortresses of the district, except that of Vitry-en-Perthois were taken by partisans of the English. In the second period of the war, after the signing of the famous Treaty of Troyes in 1420, when Henry V of England accomplished the disinheritance of the Dauphin, it was from the neighbouring province of Lorraine that Joan of Arc came to deliver France. Tradition speaks of her occasional visits to the town of Sermaize (four miles away), where her uncle was prior. After the expulsion of the English and the consolidation of the Kingdom under Louis XI, the next wars that affected Champagne were those between François I and the Emperor Charles V. It was during the last of these, in 1544, that the town of Vitry-le-François was burnt to the ground, and rebuilt on another site on a symmetrical plan prepared by an Italian architect. At the same time the Château of Étrepy and part of the church were destroyed. Portions of the Château still remain, notably a groin-vaulted chamber in the lower part of the octagonal tower of the present chapel block, and fragments in the terrace wall on the north-west at the side of the eighteenth-century stone staircase flanked by sphinxes. It can hardly be that building activity at Vitry-le-François held up rebuilding elsewhere, but for some reason, perhaps owing to the wars of religion in which the Seigneur of Etrepy was a partisan of the Guises, it was not until the early years of the seventeenth century, shortly before or soon after the accession of Louis XIII, that the new Château—that which we know to-day—rose from the ruins. The church choir was revaulted at the same time, the lord embodying in the bosses the coats of arms shown on the block plan.

To this construction of the Louis Treize period we may attribute the chapel in the south corner, dedicated to S. Nicholas in 1629, the corresponding east wing of the main building, which repeats the mansard roof and fine stone dormers, and also the kitchen and the staircase. Nothing remains of the last except traces on the plaster of the walls, where the solid oak steps entered the wall. The rest of the main block was carried out soon after and followed the note already set in the sand-coloured rough-cast walls and yellow stone quoins with roofs of sand-faced tiles. This simple harmony of colour was not interrupted when in the eighteenth century the two pilastered porticos were inserted, expressing the replanning of the interior and its enrichment by the moulded plaster and inlaid marble of the central "Salle des Gardes." Nor did the modern addition of the western pavilion introduce a discordant note. Wars became gradually more remote from the valley of the Marne; they were transferred to the banks of the Meuse and of the Rhine. Though the mound and one of its moats were retained, the Château took on a little of the gay grace of Versailles; the pretty little parterre and its stone-margined pool, the short vistas, under-cut lines and the unelaborated symmetry of masses, raised up above the level of the "parc" in a setting of huge plane trees, gave this little Château a great deal of charm and dignity, which could be felt even after its ruin in the last invasion. The main block has now been restored to its former state, as illustrated in the accompanying plans and elevations, which were prepared as opportunity offered during 1915 and 1916.

L. M. ANGUS, M.A., A.R.I.B.A.



The Chateau of Étrepy: Detail of Stone Dormers, Main Block.
Measured and Drawn by MR. LAURENCE M. ANGUS, M.A., A.R.I.B.A.



Fishmongers' Hall. (*See* p. 666).

Photo: Bedford Lemere.

GREEK AFTERNOONS AT THE BRITISH MUSEUM.—XII.

By W. R. LETHABY.

THE HELLENISTIC CORINTHIAN ORDER.

(*Concluded from p. 637.*)

THE capitals already examined were fresh and experimental, and although the Epidauros example is the perfect prototype of the "Roman" capitals, this solution was not for a long while fixed. The later capitals from Olympia are in some respects farther from the final form, although they are nearer in others. It was in Ionia that the transformation to the Hellenistic type was accomplished. The Roman Ionic, Doric, Corinthian and Composite orders were only importations of ready-made forms which had been produced in Asia Minor and Alexandria. (I have discussed this point in "Antiquities of Ionia," Volume V.) Of architecture it may be said, as Mr. Guy Dickins says of sculpture, "the outstanding feature during the Hellenistic period is the transference of its vital centres to the new kingdoms of the east and south and to the free State of Rhodes. The chief cause was economic. The great days of Attic art passed with the death of Praxiteles and the coming of Alexander. For 150 years the history of artistic development must be studied on the eastern side of the Ægean" ("Hellenistic Sculpture," p. 2).

It should be remarked that at first only exceptional columns of this "order" seem to have been used. Then the type was adopted for circular structures. Only at a later time was this column used for large temples. Probably it was in Asia Minor that this was first done. Vitruvius speaks of a Corinthian temple at Tralles, and this city was a chief centre of Hellenistic art.

CNIDOS.—The most beautiful Corinthian temple known to me is that which once stood near the harbour at Cnidos ("Antiquities of Ionia," Volume III). Roman Corinthian works seem lifeless and sullen compared to this, which was gay and graceful. Wilkins, who described it, gave it an early date and thought that it might have contained the famous Aphrodite of Praxiteles. It was much later, however, as Newton argued, not earlier than the first century B.C.; indeed, it is not unlikely that it was one of the new temples erected to Augustus and Rome. Although it was not peripteral it had columns along the flanks which were not merely attached to a wall, but were main constructive members. The walls between them were only screens of marble, and the columns were represented within the cella by pilasters. From the plans it looks as if the screens between the columns had been so thin that the sunlight would have struck through the marble, thus lighting the temple. Such a temple with translucent walls would have been marvellously beautiful. The way in which the foliage scroll of the frieze was broken up into sections by tufts of acanthus leaves over each column, from which the scrolls sprang laterally, should be noticed. This treatment had been developed on gutter fronts, where scrolls of foliage sprang from the lions' heads. Friezes with continuous scrolls of foliage were later again. I find this treatment of the frieze at Pergamos (see Marquand) and at Pompeii (Anderson and Spiers); the former, I should think, was as early as the second century B.C. It is curious that the beautiful temple at Cnidos has not found a place in the general history books. The truth is—and it is one of the purposes of this chapter to say so—a new section on Hellenistic architecture has to take the place usually given to "Roman art," which was only one late and local phase of Hellenistic art.

EPHESUS.—I now pass to the records of a fine Corinthian temple of marble once at Ephesus, which has been still more completely forgotten and, moreover, has never had its "restoration" drawn out.

At Ephesus, when first visited by scientifically-minded travellers, there existed the remains of a fine late Corinthian temple, of which the order is engraved in "Antiquities of Ionia," volume II, pl. 44. No restoration of the whole temple has, so far as I know, been made. It was visited by Salter and Covel (1673-79). The latter mentions some "very large pillars. Mr. Salter measured them and from him others have made them forty feet long" (MS. in Brit. M. The whole account of Ephesus is important). Pococke in 1745 described it as being about 130 ft. long by 80 ft. wide "in antis and of the eustyle species," having four columns between the antae, the columns being monolithic, fluted and about 47 ft. high. [This included capitals and bases.] About 1750, Mr. Bouverie, who had travelled with Wood and Dawkins, visited Ephesus and saw "the remains of a temple exquisitely wrought, the columns of which are about five feet in diameter, furnishing one of the richest examples of the Corinthian order anywhere extant" (Stuart, Volume I, pl. VII).

The first Ionian Expedition of the Society of Dilettanti was sent out in 1764 in charge of Richard Chandler; Revett went as architect and Pars as draughtsman. "We owe to them the first survey of the remains of temples on the Ionic coast (Samos, Priene, Miletus), considerably extending our knowledge of Ionic architecture" (Michaelis).

The expedition visited Ephesus and examined the fragments of the Corinthian temple.

Revett's original drawings are at the British Museum and on these are a few notes. "A Corinthian temple at some distance westward from the theatre. It is thrown down, but it appears from the ruins that it was in antis and had four columns between the antae. The frieze is ornamented with rich foliage, but is so much broken that it is unintelligible. Soffit of the architrave is ornamented [in a panel] with foliage much ruined. Height of capital 4 ft. 10.2 in., too much ruined to give particular measures." A pilaster capital was in better state and this was drawn and exactly reproduced in the plate. From the drawings and Chandler's account it appears that the temple was about 130 ft. by 80 ft. The cella was constructed of large, coarse stones, but the portico was of marble, the shafts being monoliths. The order was highly decorated, but it was much injured; the rich bold frieze had boys in foliage. "Turning towards the gate you have the Agora on the right hand and on the left the sloping sides of Coressus and presently the prostrate heap of a temple which fronted 22 degs. east of north. This perhaps was the temple erected by permission of Augustus to the god Julius, or that dedicated to Claudius on his apotheosis." From the engraved plates we find that the height of the base was 2 ft 7.4 in.; and the shaft 39 ft. 2 in.; the whole column with the capital being 46 ft. 7.6 in. The diameter was 4 ft. 6½ in. Translating these dimensions into Greek feet we get 40 for the shaft and 5 for the capital. The entablature seems to have been 11 Greek feet. There can be no doubt that the old Greek foot was still used in the setting out of this work, and in round numbers. The base as given was about 2¾ ft., but from the other dimensions we might expect 2½. The diameter may have been 4¾ ft., which is a tenth of 47½. The frieze is shown convex, but the carving is not indicated; however, we can find this elsewhere.

In Choiseul Gouffier's "Voyage Pittoresque," some engravings are given which show the frieze, the soffit of the architrave, and a pilaster capital (of the flank?). The frieze had groups of acanthus leaves above the pilaster with scrolls of foliage springing from them laterally. Doubtless a similar bunch of leaves was repeated above each capital, as at Cnidos. "The prodigality of ornament was fully justified by its reasoned application and by the skill with which all was harmonised. It is the last word in art; one must stop here or return to the simple." This account is trustworthy, as other works are described as coarse and poor. Dallaway (1797) spoke of it as the temple voted to Claudius by the Asiatic cities. "The point of the tympanum was lying near us, consisting of blocks several tons in weight with capitals of carved acanthus, all of white marble. The fronting area, of an acre at least, was enclosed by a peristyle of black granite; it was probably the Agora." Hamilton refers to "the remains of a large temple . . . marked by heaps of fallen columns and highly finished architraves and cornices. The columns were single blocks, 4 ft. 6 in. in diameter; and one which I measured had been 40 ft. long without capital or base." Falkener includes the temple on his plan of the city; he shows it set out square with the Agora, which its portico faced. He mentions it as "the ruin which from its late Corinthian architecture is thought to be the Temple of Claudius after his apotheosis. The peribolus was ornamented with a colonnade."

Pullan, who visited Ephesus in 1861, writes: "The only ruins of a temple now above ground at Ephesus are those of the temple of Julius Cæsar and Rome, near the great Agora. The temple stood upon a rocky platform, twenty or thirty feet above the general level of the platform. It had four columns in antis—immense monoliths which have fallen from the platform into the valley below. The stones of the pediment and frieze are strewn about, but are so little damaged that the portico might be rebuilt without difficulty. The ornamentation was rich, but it has been worked with the drill. This temple was erected in the time of Augustus."

Wood, who worked at Ephesus only a few years later, speaks of "a beautiful Roman temple, which was a conspicuous object above the Agora. This temple was of fine white marble. The ruin was an object of interest until a Turk obtained permission some years ago to take marble, and he carried off a great portion of the remains of the building."

According to the Austrian exploring party at Ephesus there is still a heap on the site and doubtless when it is excavated further facts will be recovered.

I give in Fig. 8 a plan of this temple put together from the description; the columns may have been spaced at intervals of 15 Greek feet. It would be an excellent school exercise to make a full restoration of this fine work by a comparison of all the authorities.

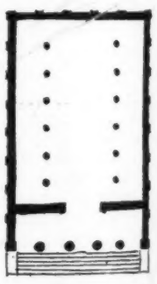


FIG. 8.

EUROMOS, ANCYRA, &c.—A fine late Corinthian temple at Euromos, near Mylasa, was visited by the British Expedition in 1765; a drawing of it by Chandler is in the Print Room of the British Museum. According to Hamilton there was a similar temple at Sagalassos. Amongst Pullan's drawings in the MSS. Room at the British Museum is one of a rich late Corinthian order from Asia Minor. Texier gives details of temples at Ancyra, Aizani, &c.; the former was of the time of Augustus, the latter, as shown by Perrot, was of Hadrian's time. The peribolus of the temple of Aphrodisias had elegant Corinthian colonnades, probably of the time of Trajan. A scroll frieze springing from groups of acanthus leaves was found at the temple of Aspendius, and the great frieze over the Ionic columns of the temple at Branchidæ was of the same type. Rayet and Thomas show the acanthus tufts over the spaces instead of the columns—a mistake. (At Aspendius an inscription was found in honour of the architect Zeno, to whom a statue had been erected and a garden given!)

One characteristic of the Hellenistic Corinthian capital is an upper acanthus leaf filling part of the front space and being in a third row.

TIVOLI.—The capitals of the early "Roman" (that is, western Hellenistic) temple at Tivoli are very similar to those at Epidauros in general type, although later in "feeling." As both these were circular structures, there is some possibility, I would suggest, of a direct relation between them. In any event, the Corinthian

tradition followed at Tivoli was in a line of descent independent of the normal form. A similar type of acanthus is found in Pompeian works. We have in England some excellent early studies of the Tivoli capitals. One of these is in the collection of R. Norris before mentioned, and another, by Gandy, is in the Soane Museum.

ATHENS.—The capitals of the temple of Zeus were carefully studied by Penrose, who dates the earliest of them *c.* 170 B.C. The capitals were 6½ Greek feet high, equal to the diameter of the columns. "The columns are remarkable, not only for their great size, but for their extraordinary beauty." The columns were 8¾ diameters high, including the plinths. The execution was sharp and the forms elegant, but the general setting out was of the normal type. According to Vitruvius the architect was Cossutius, a Roman. There is some mystery here. The author of these capitals was certainly no Roman; the name Cossutius is, I believe, on a work in the B. M. inscribed in Greek.

There are in England several original Corinthian capitals which might be studied. A large one from Ephesus in the British Museum is much broken at the extremities of the leaves, but examination shows it to have been a far more refined work than the first impression suggests. The cutting was sharp and clear, and the points

FIG 9.

of the leaves were relieved from the ground by having long "pockets" driven between the main groups (Fig. 9). There are other smaller capitals in the Museum and there is one at least in the Soane Museum. At the Society of Antiquaries there is a capital of marble, small, but good. In the artificial "ruins" at Virginia Water are several capitals and other interesting fragments. I should like to suggest to some student to make a special study of the capitals in England; we neglect what lies near.

COMPOSITE CAPITALS.—Such capitals are usually defined as a combination of the Ionic and Corinthian types, but as there are other varieties of composed capitals, we may here give the term a wider extension. Thus of the bull-headed class first found at Delos another example has been found at Miletus (Fig. 10). The finest from Salamis is in the B.M. (*c.* 200 B.C.). Then there is a highly ornamented capital found at Eleusis, of which a photograph is given by Spiers and Anderson. This links up with pilaster capitals at Branchidæ, which may be dated in the third century B.C. Again there is the type best known by the capitals of the little Tower of the Winds at Athens. One of these bears the number 2571 in the British Museum, and a second is exactly like it. A sundial found at Zenos in 1905 bears an inscription showing that the donor, Andronikos of Kyrrhos, whom we know as founder of the Tower of the Winds at Athens, was a native of the city of Kyrrhos in Macedonia and not a Syrian as had until then been believed (Michaelis). Evidently Andronikos was interested in times and seasons. It is agreed that the Tower of the Winds may be dated *c.* 50 B.C. In some respects it was inspired by the great Pharos at Alexandria, one of the stages of which was octagonal in form; here, too, were great figures of Tritons, the source of the wind vane of the Athenian tower.

FIG 10.

We have usually been instructed that the "Composite Order" was a Roman innovation, and for some reasons not quite proper. The Romans did not invent in art, they accepted it as a Greek revelation, and the "Composite" type was one of several varieties introduced in the Hellenistic East and carried to Rome. The earliest example known to me was a temple at Mylasa, not far from Halicarnassus, which was described and drawn by Pococke (1745). "The great curiosity at Mylasa is a temple which was built to Augustus and Rome, and is a most exquisite piece of architecture. The temple was small, in the front there is a portico of the composite order and on the other three sides an Ionic colonnade. On each side of the door were pedestals. The frieze is adorned with tripods, bulls' heads and pateras. The cornice and pediments are very richly ornamented. The capitals are indeed fine except that the curled leaves and the abacus seem to project too far at the corners in proportion to the size of the capitals. About 4 ft. below the capital are festoons round the shaft, but what is more particular is a work like a capital on the base of the pillar." Pococke's drawings are quite clear, and show that the feature just described was a lower drum carved with tall acanthus leafage—doubtless an offshoot of the sculptured drums at Ephesus. The moulded bases were many-membered, the shafts were fluted, and at the top below the neckings were festoons of oak foliage; the whole column was specially ornate and the association of the Composite capitals with the Ionic here is of high interest. The latter had angular volutes and ranged exactly with the upper parts of the Composite capitals, which in fact were enriched versions of the Ionic. The so-called Composite order was in fact a late Hellenistic variety of the Ionic as used at the Erechtheum which had a band of ornamental carving below the volute member. The cella of the temple was small—about 26 ft. square—and the columns seem to have been 8 Greek feet from centre to centre. In the pediment was a window opening, following a tradition of which the first known example was at Magnesia. On the entablature was a Greek inscription filling it completely.

This very interesting temple, which I have never seen mentioned in the general histories, was visited for the first time, so far as we know, by Salter, of the Levant Company, about 1673. Copies of his rough sketches and notes are contained in Covel's MS. collection in the British Museum—"A Temple in Melas. The front and postern hath 6 pillars. Ye sides but 5 on either hand [*i.e.*, between the angle columns]. Above ye cornice are 16 lions' heads" [*i.e.*, on the gutter]. The sketches confirm Pococke's accuracy, and show the opening in the tympanum and give the dedicatory inscription beginning Ο ΔΗΜΟΣ and ending ΡΩΜΗΙ. A sketch of the entrance door shows it as having a sill like the architrave. Wheler and Spon (1682) give a rude little illustration of the building, which may have been derived from Salter's sketch. It is described as "A fair temple of marble built in honour of Augustus and the Goddess Rome. It had twenty-two pillars, but the front only is now standing."

When Choiseul Gouffier visited Mylasa, the Temple of Augustus had been destroyed, and he only saw fragments which had been re-used in a mosque. He specially mentions pieces of the frieze decorated with *des massacres et des trépieds séparés par des patères*. Fig. 11 is the plan with a detail of the lower drum of the columns decorated with large acanthus leaves. Might I venture to suggest to some school that it would be an excellent piece of scholarship to draw out a restoration of this earliest known work in the "Composite order"? Pococke's drawing of the capitals might be corrected by comparison with other Composite capitals more carefully drawn from the ruins of Asia Minor. At Aizani the capitals of the columns between the antæ were of the Composite form. This temple, as Perrot has shown, was of Hadrian's time. Composite capitals have been found in the theatres of Myra (Fig. 12) and Ephesus. For the last word on late Hellenistic art see the Austrian account of excavations at Ephesus and the German account of Miletus (1919). The Composite capitals found in

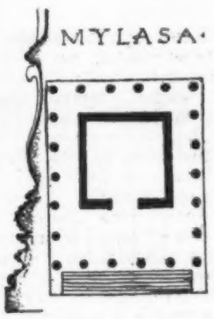


FIG 11.

FIG 12.

Rome at the Arches of Titus and Septimius Severus (Fig. 13) and at the Baths of Caracalla, are so much alike and so closely resemble those found in Asia Minor, that it is evident that the type was developed in Eastern Hellenistic schools. Even the little curled tendrils seen in Fig. 13 are found in the Ionian examples; further, the foliage spreading over the volute member was evidently taken over from Ionic capitals of the type found at Samothrace and the Smintheum.

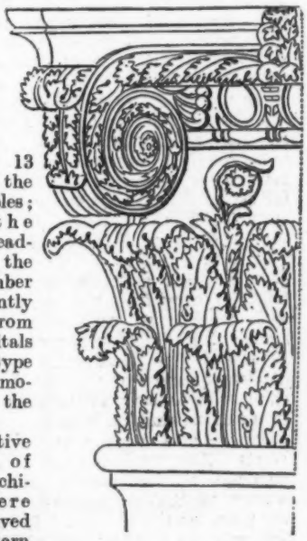


FIG 13.

The decorative elements of Roman architecture were entirely received from Eastern Hellenistic sources and in most cases the artists themselves must have been from the East. The architects of the Renaissance thought that the sacred centre of art was Rome itself, and that Vitruvius was an inspired text. Professor Dill in his excellent "Roman Society" tells how Latin literature died thinking its essence was "style," so modern "architecture" will not live until it again becomes adventurous building.

. . The . .

City Companies and Their Halls.*

No. 37.

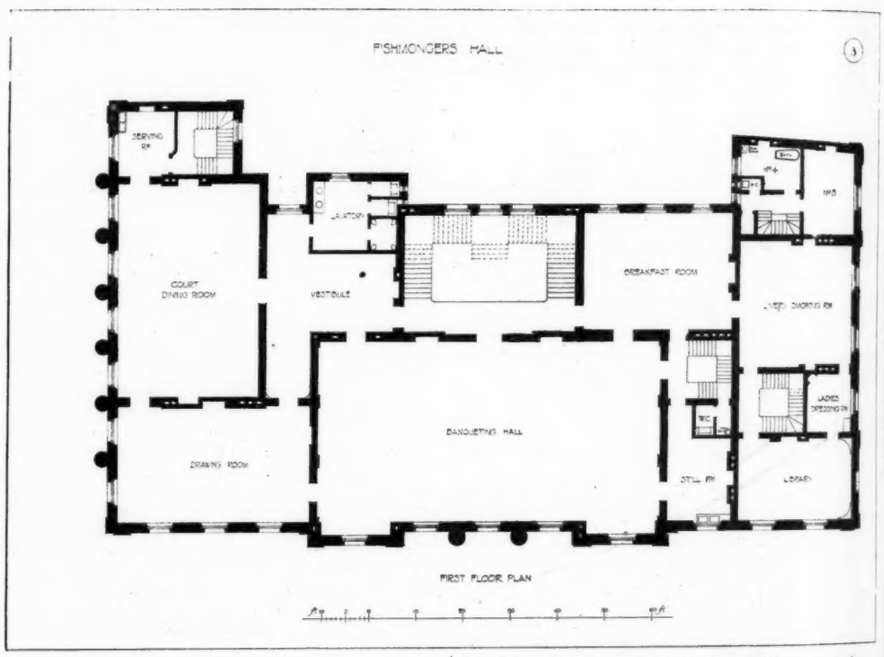
The Fishmongers' Company.

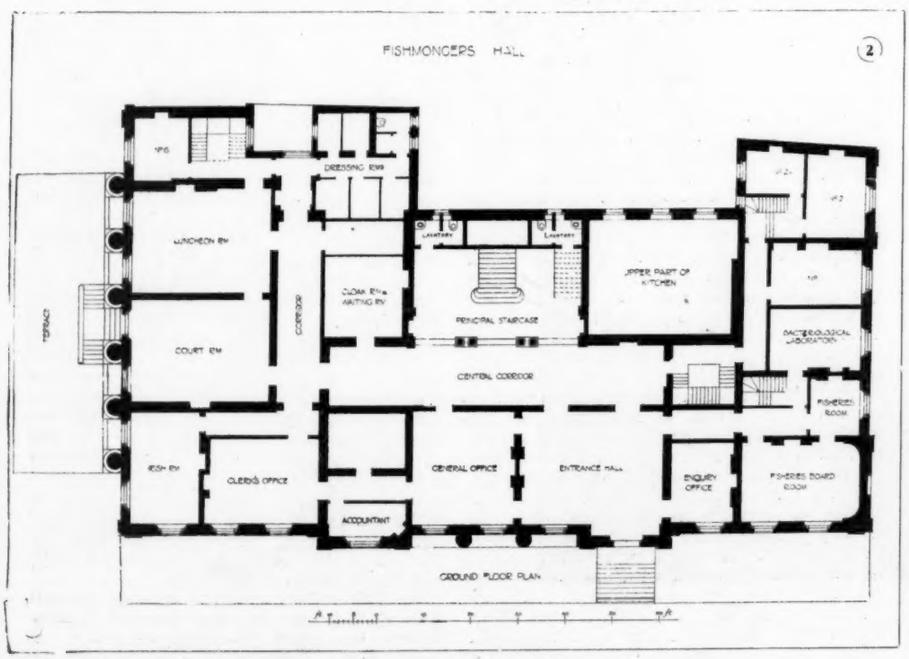
FISH was relatively an even more important commodity formerly than it is at present The small proportion of cultivated land, and the wars and disturbances which chequered our national history from the days when the last Roman legions left these islands, must have rendered food supplies which were independent of cultivation peculiarly valuable. In addition, the observances of the Church by forbidding the use of meat on many days rendered fish more necessary than it afterwards became. These conditions largely account for the fact that the fishmongers' industry became in early years a very important one, and many of those connected with it became both influential and wealthy. The fishmongers and bakers both had hallmotes, the fishmongers being obliged to attend two lag-hallmotes, one on St. Martin's Day, and the other in Lent. These hallmotes were an offshoot of the larger folkmotes, and practically formed a system which endowed each calling concerned with many of the attributes of self-governing communities. Members who did not attend the hallmotes were fined 21 pence, and its functions comprised the holding of a court once a week to settle disputes between London fishmongers, while it might sit from day to day to settle disputes in which foreign fishmongers were concerned

By the end of Henry III's reign, the courts of hallmote, though nominally held by the sheriff's representative, were actually administered by the fishmongers. What their position was is described in a contemporary account as follows:

> "Also the men of the said trade give unto their Bailiff two marks per annum . . . the same in farthings, halfpennies and pennies according as their collections may collect. And they so pay these two marks, because if anyone belonging to the hallmotes is impleaded at the husting, it is the duty of the Bailiff to withdraw him from the husting into the hallmote in Bridge-street, that they may distrain upon their own debtors, or do that which justice shall demand."

Thus, before the fishmongers received their first charter from Edward I, they were a power.





*The following articles on the City Companies have already appeared in our pages:—the Mercers', March 31, 1916; the Grocers', April 28; the Drapers', May 12; the Goldsmiths', June 9; the Skinners', July 14; the Merchant Taylors', August 4; the Haberdashers', September 1; the Salters', October 6; the Ironmongers', October 27; the Vintners', December 8; the Clothworkers', December 22; the Barbers', January 26, 1917; the Dyers', Feb. 16; the Brewers', February 23; the Leathersellers', March 30; the Pewterers', April 20; the Cutlers', June 1; the Bakers', June 15; the Wax Chandlers', June 29; the Tallow Chandlers', August 10; the Butchers', September 7; the Armourers' and Brasiers', September 21; the Girdlers', October 12; the Saddlers', November 9; the Apothecaries', December 7; the Painter Stainers', January 11, 1918; the Curriers', February 15; the Innholders', March 29; the Coach and Harness Makers', August 16; the Founders', Nov. 15; the Stationers', December 13; the Coopers', Aug. 8, 1919; The Cordwainers', Nov. 14; the Carpenters and the Joiners', Jan. 23, 1920; The Gunmakers', Oct. 8.

ful self-governing community, exercising an independent jurisdiction over men of their calling. They also appear among the adulterine guilds which were fined in 1154. Edward I enacted that no one should store fish in his cellars to retail subsequently at an exorbitant price, or buy before the king's officers had made their choice, and it was forbidden for anyone to keep fish in London for a second day unless it were salted. A city assize forbade any fishmonger to water his goods twice, or to sell what was bad, under penalty of a fine for the first two offences; for the third offence the delinquent was put in the stocks.

In the Liber Horn in 1311 it was enacted that no fishmonger should buy fish beyond the bounds appointed, which were fixed at the chapel on London Bridge, Baynards Castle, and Jordan's Key; and no fish was to be brought in any boat without being first landed at the chapel on the Bridge.

Though it is practically certain that charters were granted to the Fishmongers by both Edward I and Edward II, the earliest of those existing is the patent of Edward III in 1363, granted the same year in which the Fishmongers contributed £40 to the expenses of the French war. It confirmed grants made from time to time by the king's predecessors and gave them rights to sell fish in Bridge-street, Old Fish-street and the Stocks, excepting "stock fish," which belonged to the Mistery of Stock Fishmongers. The origin of this second body is obscure, but it was evidently for many years a great and flourishing body. A later charter of Richard II in 1399 is simply addressed to the Fishmongers of London and may have been intended to include the Stock Fishmongers, who, however, received separate incorporation in a charter of 1509, to be followed by that of Henry VIII in 1536, which definitely united both bodies and arranged for the transfer of the property of the Stock Fishmongers to the Fishmongers, for the mutual benefit of both

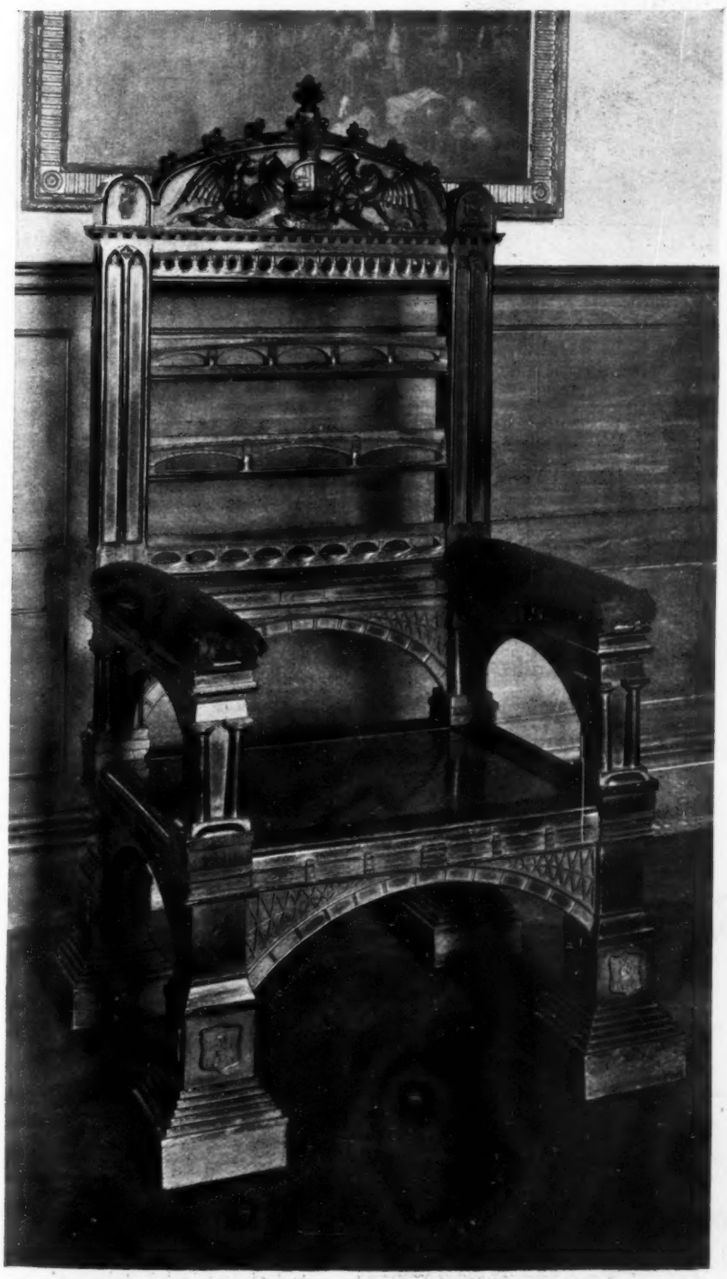


Photo: Bedford Lemere.

Fishmongers' Hall: The Master's Chair.

[The seat of this chair is formed of a stone from Old London Bridge, and on it are represented the various bridges crossing the river.]

This final charter confirmed certain articles of agreement reached between both bodies twenty years earlier, or shortly after the grant of incorporation to the Stock Fishmongers.

The reign of Richard II was a period of misfortune for the Fishmongers, as the zealous reformer, John of Northampton, was for a time paramount in the City, and he appears to have been actuated by a special aversion to the victualling bodies and the Fishmongers in particular.

In 1376 a proposal was made to destroy the power of the Court of Aldermen by creating an independent Common Council elected from the "misteries." Three aldermen were discharged from office and the new Common Council made a regular part of the constitution. Northampton, who is described as being "so proud that he could neither get on with his inferiors or be deterred by the advice and suggestions of his superiors from striving to carry out his drastic ideas to the bitter end," got together a committee to revise the City ordinances, and especially those dealing with victualling. This Committee drew up a Jubilee Book, which was bitterly objected to by the Grocers and Fishmongers. During the two years in which Northampton was mayor, he "compelled the Fishmongers to acknowledge that the craft they had hitherto exercised was not a craft at all, and was not to be reckoned or named as such among the other crafts of the City, and thus brought about that those who were before reckoned as superiors were now scarcely admitted among the inferiors."

Between 1377 and 1381 the victuallers regained their dominance of the City under the leadership of Nicholas Brembre, but in 1382, under the second mayoralty of Northampton, it was enacted that no fishmonger was to forestall fish by land or water or to take any other fishmonger into partnership. All strangers bringing salt fish, red herring, or other victuals were to offer it for three days to the public before disposing of it to city tradesmen. Strangers bringing fresh fish of the sea might sell it in their ships or in Cornhill or Cheapside, while City fishmongers were limited to two hours a day for retailing such fish. Sweet water fish was to be sold direct to consumers by those who caught it, or by their wives or servants. Parliament enacted an Act confirming the liberties of merchant strangers and forbidding London fishmongers to buy any fish excepting eels, luces and pike to sell again, and it was enacted that no one belonging to the victualling trades could hold any office in the City, if any other suitable person could be found. Nicholas Brembre again becoming mayor, the victuallers held power for five years, but he had allied himself with the party of the king's friends and was in 1388 hanged as a traitor. The contest had been so bitter that as late as 1394 it was found necessary to forbid the mention of the names of Brembre or Northampton.

The inner management of the "mistery's" affairs was, until the charter of Edward III, vested in two bailiffs, when they were replaced by four, and in 1499 by six, wardens. The Chief, or Prime, Warden holds an office which is equivalent to that of Master of other companies.

Twenty-eight mayors are mentioned as having belonged to the Company up to the year 1715, among the most important of whom were John Lovelkyn, a Stock Fishmonger who held the office in 1349, 1359, 1366 and 1367, and represented the City in two Parliaments, and Sir William Walworth, also a Stock Fishmonger and originally Lovelkyn's apprentice, who was mayor in 1374 and 1380. It was in 1381 that Walworth slew Wat Tyler in Smithfield and was knighted by the king and rewarded by a grant of £100 a year; Sir Isaac Penington, a Puritan, who represented the City in two Parliaments, was another mayor; Sir John Gayer in 1646, and Sir Thomas Abney, who held office in 1700, was also mayor and represented the City in Parliament.

Stow states that the two bodies of fishmongers had at one time six halls—two in Thames-street, two in New Fish-street, and two in Old Fish Street. Fishmongers' Hall occupied the site of four tenements, which were, in 1368,

occupied by Lovelkyn, Morden, Changeton, and Rothinge. The Company's conveyances of these and of a fifth tenement proves that they occupied a frontage of 120 feet to Thames-street and a breadth of about 200 feet from thence to Stock Fishmongers' Hall, which was situated to the eastward and had a frontage of 45 feet and a depth of 66 feet. The site occupied by the whole was called Stock Fishmongers' Row. Lovelkyn's property passed to Sir William Walworth and then through a number of other hands to Lord Fanhope. In 1434–35 it passed by lease for life with reversion after his death to the Fishmongers' Company, who, when they had acquired the other tenements, established their hall there. It was not till the reign of Henry III that the Company, having abandoned their other halls, agreed to occupy one building. The building, of which Lovelkyn's house formed the nucleus, is shown on old prints as a building with two courtyards facing the river.

This building was destroyed by the Great Fire and was replaced by one designed by Jerman carried out in brick with stone dressings; it surrounded a courtyard, the dining-hall being on the south side.

The building of new London Bridge to the west of its former position involved the destruction of Fishmongers' Hall, which was therefore replaced by the present structure in 1831-33. This was designed by Henry Roberts, and is one of the finest buildings of its date; its fine position in relation to the bridge renders it one of the great features of the riverside and makes one regret that Wren's scheme of lining the riverside with the Halls of the Companies was not carried into effect. It is to be hoped that an equally fine structure will replace the old Pearl Insurance offices to the east of the Bridge.

The Arms of the Fishmongers' Company are thus described:—

Arms.—Azure, three Dolphins naiant in pale argent, finned and ducally crowned or, between two pairs of lucies in saltire, of the second, over the mouth of each lucy a ducal crown or; on a chief three pairs of keys indexed in saltire, or. *Crest.*—Two cubit arms erect, the dexter vested gules cuffed azure, the sinister vested azure cuffed or, holding in the hands proper a regal crown of the last. *Motto.*—"Al worship be to God only."

Photo: Bedford Lemere.

Fishmongers' Hall: The Staircase.

The arms of the Stock Fishmongers were:

Azure two lucies in saltire, argent, with coronets over their mouths or, on which a chief gules three dolphins naiant, argent.

The Company, under powers conferred by the Charter of James I, and by the Salmon and Freshwater Fisheries Act, send to Billingsgate and Smithfield markets officers known as fishmeters who seize and destroy immature or unsound fish, while other officers are employed to carry out the provisions of offences under the Salmon, Freshwater, Lobster, and Crab Acts; it also exercises control over the sale of oysters and takes measures to ensure the purity of the oyster beds.

The Fishmongers' Company's great school, at Holt, in Norfolk, was founded in 1555, by Sir John Gresham. It was entirely reconstructed in 1900 as a public school, organised on modern lines. The new buildings opened in 1903 accommodate 200 boys, and the grounds cover 56 acres.

The Fishmongers award a large number of scholarships of varying amounts, tenable at the universities, and grant many scholarships. Both in the importance and extent of the educational and charitable work undertaken, they are among the foremost of the great Companies and are among the small number which are actively associated with the trade whose name they bear.

Photo: Bedford Lemere.

Fishmongers' Hall: The Livery Hall.

St. Paul's Cathedral.

Canon Alexander (Treasurer of St. Paul's), in an address to City men, at St. Giles's, Cripplegate, last week, said that for more than seven years, fortified by expert advice of every kind, the cathedral authorities had been grappling with the critical problem of the stability of the great dome. Sir Christopher Wren planned originally a much lighter dome, and, when his designs were put aside, the piers, filled with rubble, proved hardly adequate to meet the tremendous pressure, and the dome settled towards the south-west. There was going on, without pause day and night, a veritable struggle of giants—the dome pressing down the piers, the piers straining to uplift the dome. The problem had become more acute as the years had gone by, and as the conditions (always adverse to such a building) had become more unfavourable; and even now it might be only a question of time when the fabric would reach the danger-point. About one-fourth of the necessary work had been carried out, and a large sum would be needed to complete the scheme. Five years had been given to the practical rebuilding of the south-west pier, which had been strengthened by the insertion of some thousand tons of new stone and cement and by the removal of great quantities of rusting iron, and it was hoped that a second pier would be finished in a few months. Great steel girders had just been procured to relieve the arches of some of the weight while the piers were being finished. Canon Alexander appealed to those present to help financially in the work of repair.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

Gardens.

A GENERAL meeting of the Birmingham Architectural Association was held at the Royal Society of Artists' Building, Birmingham, on December 3. The President, Mr. H. T. Buckland, F.R.I.B.A., occupied the chair, and 51 members and friends were present.

Mr. Hodson, in reading a paper on "Gardens: Their Design and Construction," said during the past 20 or 30 years there had been a noted increase of interest in the subject, particularly in connection with gardens of modest extent. Many of the larger country houses were noted as much for the charm of their well laid out parks and gardens as for their architectural character. The house and outbuildings formed the heart of the scheme, and the amenities conveniently arranged included the gardens immediately about the house and a kitchen garden properly sheltered; the orchard and other gardens usually merged into park lands or open country. A running stream, placid pools and verdant lawns added restfulness and harmonised the architectural lines of the building with the surrounding landscape. Fortunately, the charm of a house did not depend on its size, and the smallest garden was capable of enchanting transformation when skill and artistic advice were brought to bear on its planning.

A garden should be restful. An ideal garden from an artistic point of view should contain the greatest possible number of pictures, harmoniously united. He who aspired to make one must not rely on the friendly aid of nature to cover up his deficiencies; the capacity to recognise beauty was not in itself sufficient, he must acquire a knowledge of the technique of creating beauty. Perhaps the best way of securing unity was to determine that one feature should be more important than the others, and that they should be grouped or disposed around it in subordinate positions and suitable proportions. On the subject of harmony, perhaps the most important point, apart from colour, was the method of connection —the connecting and blending of the various essential units into one pleasing and restful picture.

The architect's ideal was so to arrange the plan of a house that no other structure could conceivably appear to be more appropriate to the situation. He should try to plan his garden in such a way that no other treatment could be in truer sympathy with the house. The house and garden must, therefore, be considered as indivisible parts of one composition. It should never be forgotten that the house was the heart of the whole scheme, its *raison d'être*. It should overlook the fairest scene of the garden, and from the garden should display its most favourable aspect. Unity of composition would be emphasised by an extension of the axial lines of the house into the garden, either in the form of main walks or central vistas. In the arrangement of a vista, care should be taken that the dominance of the main view should not be weakened by the opening of side vistas on such a scale as to compete with, and distract the eye from, the principal lines of sight. Left to herself, nature would ruin any garden. On an exposed site the ruling spirit might be a lusty wind which must be checked in its force before success could be hoped for, and that might necessitate a material alteration of arrangement

The complexity of the subject of garden design would be admitted, but in the immediate vicinity of the house the main issue was comparatively simple. It might safely be said it was always desirable to arrange a few principal features, which were commanded by the main windows of the house, and combine with them a number of secluded scenes of a special character. The question of whether a formal or informal garden was better was almost entirely a matter of appropriateness or fitness to the particular site under consideration. It might generally be taken that a formal garden was one in which the direct guidance of nature was formally dispensed with in the making of the picture. Although a formal garden did not necessarily preclude the full development of trees and plants, the positions occupied by them were strictly defined, and their relations to one another were such as would seldom occur in natural planting. In the informal garden there was a pretence of following nature, but in reality nature was persuaded to take a form of our choosing. Although not symmetrical as a whole, such a garden might contain detailed features or ornaments of regular shape in suitable positions.

One of the chief resources at the disposal of the garden designer was turf; the texture and colour of grass was so serviceable that it would carry the eye over a gap like a sunken road or fence without any apparent break in continuity. Beyond the garden boundary it would reappear and serve the form of a connecting link with some distant view. It was one of the principal agents in bringing an entire garden scheme into harmony, and one might almost say "when in doubt use turf." Ample provision must be made for flowers, upon which, after all, the intimate pleasure of the garden depended. If the size of the scheme would not permit of a rose garden as a complete unit, then beds should be reserved and specially prepared for roses, without a good selection of which no English flower garden was complete. The charming old-world effect of well-filled herbaceous borders flanked by stone-flagged paths should not be forgotten, nor should the draped effect of a well-proportioned pergola.

Where possible a rock garden should take the form of a distant unit, as secluded from the formal garden as practicable. The larger the size and the fewer the pieces of stone used in its construction the better the result. The effect of a natural outcrop of rock could only be reproduced by a study of nature and after considerable experience. For paths and terraces natural-faced hard stone flags produced an artistic and old-world effect. They were permanent and needed a minimum of attention. They might be coursed or laid at random in either rectangular or irregular pieces. They were most frequently laid with open soil joints to encourage vegetation.

Mr. G. Salway Nicol, in proposing a vote of thanks to Mr. Hodson, said he thought the subject of garden design to be one of supreme importance; certainly the subject was an architectural one. A garden should be intimately related to the house or building it encompassed, and should form a harmonious complement of a scheme of which the house was the central feature. The gardens of Italy—even the very small ones—had taught us much in the way of garden design, and the conception of many of the magnificent gardens which formed an essential setting to the manors and halls of Elizabethan times were largely the outcome of a careful study of the charming gardens of Italy.

Mr. A. T. Butler seconded the vote of thanks, which was heartily agreed to.

No. 150, High-street, Notting Hill Gate.

MR. E. G. STEVENSON, Lic.R.I.B.A., Architect for Shop Front.

[This small shop front is one of a series of food stores which Messrs. John Quality, Ltd., are now opening in various parts of London and the suburbs. It has been designed in an endeavour to give as plain and dignified a treatment as possible with a bright, clean, easily distinguishable appearance. The front has been carried out in wood painted a medium green, stippled over white, Van Straaten cream tiles to the stall board, and the fascia painted cream with letters cut out of hardwood screwed on and painted black. The general contractors were Messrs. W. H. Gaze & Sons, Ltd., Kingston-on-Thames, and the front was made in the shops of Messrs. Selfridge' Building and Equipment Department to the design of Mr. E. G. Stevenson, Lic.R.I.B.A., of 32 Orchard-street, W.1.]

HOUSING AND TOWN-PLANNING NOTES.

Scottish Housing Bill.

The Housing (Scotland) Bill, which confers on Scottish local authorities powers to hire houses compulsorily up to 1923, was read a second time in the House of Commons on Monday last.

Cheshire Arterial Roads Scheme.

At a recent conference of representatives of the Manchester Town-planning Committee and the Cheshire local authorities, a definite understanding was reached on the question of the main roads running from Manchester into Cheshire. The southern scheme of the Manchester Town-planning Committee includes 52 new roads, with a width varying from 42 ft. to 100 ft. Several of the proposed roads are from two to three miles in length, and three of the 100 ft. roads will be new main roads for all classes of traffic. On all the 100 ft. roads it is hoped to construct specially fenced-in tramway tracks for fast traffic. One road, from Sladelane to Cheadle, will be seven miles in length. The scheme also provides for the widening of 50 streets. Ten per cent. of the area under the scheme will be reserved for parks or open spaces, there will be three new parks and sixteen two-acre sites for children's playgrounds.

WEEKLY HOUSING RETURN.

Progress of housing schemes up to November 27: Schemes submitted, 11,361; approved, 6,597. Lay-out schemes submitted, 6,765; approved, 6,178. House-plans submitted, 277,630 houses; approved, 261,368. Tenders submitted, 175,670 houses; approved, 161,909. Contracts have been signed for 129,045 houses.

Schemes dealt with during the week ended November 27: Schemes submitted, 38. Lay-outs submitted, 52; approved, 44. House-plans submitted, 2,343; approved, 2,116. Tenders were submitted for 2,714 houses, and approved for 2,372. These include the following:—

Applications.

SITES.

URBAN.—Birmingham, 156.18 acres; Halifax, 15.91; Mansfield Woodhouse, 27.81; Newcastle-on-Tyne, 35; Oldbury, 52.18; Rochdale, 61.41.

RURAL.—Llantrisant and Llantwit Fardre, 24.92 acres.

LAY-OUTS.

URBAN.—Birmingham, Farnborough, Golcar, Spennymoor, Stalybridge, Sutton-in-Ashfield, Wallasey.

RURAL.—Ashby-de-la-Zouch, Bedford, Blaby, Bourne, Brackley, Brailes, Chipping Sodbury, Cuckfield, Durham, E. Grinstead, E. Kerrier, Foleshill, Geirionydd, Goole, Hitchin, Houghton-le-Spring, Lexden and Winstree, Lymington, Market Harborough, Ramsbury, St. Asaph (Flint), Sevenoaks, Solihull, S. Molton, Spilsby, Ulverston, Uppingham, Wem, W. Dean, Yeovil.

HOUSE-PLANS.

URBAN.—Birmingham, 22 houses; Coseley, 28; Darlaston, 30; Darlington, 36; Farnborough, 24; Golcar, 3; Lambeth, 4; Llantarnum, 156; Merthyr Tydfil, 596; Nottingham, 1; Peterborough, 124; Spennymoor, 168; Sutton-in-Ashfield, 98; Swansea, 480.

RURAL.—Abergavenny, 6 houses; Ashby-de-la-Zouch, 100; Brackley, 6; Brixworth, 3; Cardigan, 6; Cuckfield, 34; Daventry, 6; Foleshill, 88; Geirionydd, 6; Hungerford, 10; Lexden and Winstree, 8; Llanelly, 26; Llanrwst, 6; Lutterworth, 10; Lymington, 10; Narberth, 10; Neath, 70; Potterspury, 2; Ramsbury, 4; St. Asaph (Flint), 24; St. Dogmells, 2; Sevenoaks, 24; Shepton Mallet, 22; Solihull, 52; S. Molton, 2; Uffington, 4; Ulverston, 2; Wem, 14; Yeovil, 10.

COUNTY COUNCIL.—Lancashire, 6.

Approvals.

SITES.

URBAN.—Chesham, 16 acres.

LAY-OUTS.

URBAN.—Birmingham, Chingford, Golcar, Ramsgate, Sheffield, Spennymoor, Sutton-in-Ashfield.

RURAL.—Bedford, Brailes, Chipping Sodbury, Epping, Epsom, Foleshill, Geirionydd, Goole, Hitchen, Lexden and Winstree, Neath, St. Asaph (Flint), Sevenoaks, Solihull, Spilsby, Stockbridge, Tisbury, Uppingham, Wem, Yeovil.

COUNTY COUNCILS.—Lancashire. Yorkshire . Riding).

HOUSE PLANS.

URBAN.—Acton, 12 houses; Birmingham, 22; Coseley, 28; Darlaston, 30; Golcar, 3; Kingsbridge, 24; Lambeth, 4; Leeds, 6; Mountain Ash, 66; Nottingham, 1; Peterborough, 124; Reading, 56; Rothwell, 18; Saltburn, 36; Sheffield, 40; Spennymoor, 168; Sutton-in-Ashfield, 98; Swansea, 480; Yiewsley, 369.

RURAL.—Bedford, 6 houses; Clutton, 14; Disley, 20; Epping, 20; Epsom, 80; Foleshill, 88; Geirionydd, 14; Lexden and Winstree, 8; Lutterworth, 10; Neath, 70; Newcastle-Emlyn, 14; St. Asaph (Flint), 24; Sevenoaks, 24; Solihull, 52; Stockbridge, 12; Tisbury, 18; Tonbridge, 4; Uffington, 4; Wem, 14; Wigan, 16; Yeovil, 10.

COUNTY COUNCILS.—Lancashire, 8; Yorkshire (E. Riding), 1.

Tenders Approved.

URBAN.—Aspatria, 60 houses; Barnet, 33; Benfieldside, 168; Bootle, 212; Bristol, 14; Cheltenham, 20; Colne, 56; Highbridge, 20; Margam, 30; Nottingham, 1; Sheffield, 40; Shoreditch, 71; Slough, 212; Spennymoor, 168; Sutton Coldfield, 16; Sutton-in-Ashford, 40; Swansea, 480; Warminster, 36; Warsop, 12; Wigston Magna, 26; Yiewsley, 369; Yeovil, 12.

RURAL.—Alnwick, 4 houses; Axbridge, 14; Billericay, 10; Campden, 26; Cleobury Mortimer, 6; Ellesmere, 14; Epping, 20; Gloucester, 4; Gnosall, 32; Horsham, 8; Lexden and Winstree, 8; Lutterworth, 10; Okehampton, 10; Rock, 4; St. Columb Major, 20; Sevenoaks, 22; Stow-on-the-Wold, 4; Taunton, 10; Tavistock, 4; Uffington, 18; Wheatenhurst, 20; Wokingham, 8.

The Belgian Royal Academy.

The Fine Arts Section of the Royal Academy of Belgium last week celebrated its seventy-fifth anniversary. A ceremony took place attended by the King and Queen, M. Destrée (Minister for Science and Arts), and a number of foreign delegates, including Sir George Frampton and Sir Reginald Blomfield, of the Royal Academy, Mr. J. Campbell Mitchell, and Mr. David Alison, of the Royal Scottish Academy and delegates of the American, French, Italian' Serbian, and Polish academies.

Sketch for a New Cottage, Keston, Kent. MR. ALEC SMITHERS, F.R.I.B.A., Architect.

[This cottage was designed in 1914, and was intended to be built at Keston, Kent, on a site commanding a fine view over the surrounding country. There are two more bedrooms in the roof on the south side, not shown in the drawing. The walls were to be built hollow in concrete, covered with cream roughcast, and the roof tiled with old tiles from some local barns. The plan was arranged for economy in service, and the best of the labour-saving devices were to be installed, including gas, steam cooking and heating apparatus, with enamelled fittings throughout and composition floor covering. The smallest possible amount of woodwork was to be employed, the floors and roofs to be constructed in light reinforced concrete throughout. The architect is Mr. Alec Smithers, F.R.I.B.A.]

DISCUSSION ON OFFICE OF WORKS HOUSING ESTIMATE.

ON Wednesday last week the House of Commons went into Committee of Supply to consider the Supplementary Estimates. Speaking on the supplementary vote of £200,000 in respect of expenditure by the Office of Works under the Housing, Town-planning, &c., Act, 1919, Sir Alfred Mond (H.M. First Commissioner of Works) explained that as a number of local authorities in London and elsewhere had experienced very great difficulty in getting on with their housing schemes, it had been thought advisable to use the organisation of the Office of Works to act as agent for the Ministry of Health, and, in conjunction with the Ministry of Health and the local authorities, to undertake a number of housing schemes for these authorities in the capacity of both architects and contractors. This £200,000 would form a kind of floating balance to enable the schemes to be carried on. The cost would be repaid ultimately by the local authorities, and was in no sense a real charge on the Treasury, but simply a banking transaction to facilitate the rapid progress of the work. The building trade unions and the trade organisations had supported the department. Not only had they enabled the department to obtain labour, but they had been prepared to assist in training unskilled labourers, most of whom had been ex-Service men. The number of houses to be completed under schemes at present in operation under the Office of Works was 2,236, at an estimated cost when completed of £2,200,000. There were about twenty schemes (about 4,000 houses) under negotiation with local authorities on which work would be commenced when the financial arrangements had been made with the local authorities, and there were further negotiations pending for about 6,000 houses, making a total of 10,000. The approximate cost would be £1,000 per house. A small number of the houses had been completed, and a certain number had been handed over to local authorities. One of the reasons why the Office of Works was asked by the Ministry of Health and local authorities to undertake this work was because of the difficulty experienced in getting reasonable tenders, or, indeed, any tenders at all. The Office of Works was really acting in the capacity of agents for local authorities, and incurred no financial liability so far as the Government and the taxpayer were concerned. The money was repayable, and they had made careful safeguards to see that the schemes were not embarked upon until the money was provided. The schemes were not proceeded with except at the request of the local authorities and with the approval of the Ministry of Health. In the result the property would belong to the local authorities exactly in the same way as if they had done the building themselves.

Considerable discussion followed, in the course of which Sir W. Davison mentioned the case of a house at Kensington which had been converted into five flats by the Office of Works at a cost of £3,300, whereas the estimate given to the Borough Council had been £1,018; that, he said, showed how very unsatisfactory was work done by a Government department. He would not be party to a Government department doing work which could be carried out much better by a private contractor.

Mr. Hogge said he regarded the estimate as involving a big new principle, and if it were agreed to all the private building contractors serving local authorities would ultimately be incorporated in a Building Civil Service.—Mr. Stevens expressed the opinion that the estimate would commit the House of Commons to a policy of nationalisation of housing.

Sir Alfred Mond, in reply, said the "modest, small and temperate scheme of his department for solving a very urgent social problem had been elaborated, developed and exaggerated in the most fantastic and ridiculous manner he had ever heard of." It was apparently suggested that the Office of Works was going to do all the building in the country. It was quite obvious that a deliberate attempt had recently been made to secure exaggerated prices in the building of some schemes, particularly for the smaller local authorities. He saw no reason to believe that houses built by his department would be dearer than those built by private enterprise, and he had every reason to anticipate that they would be cheaper. There was no reason to be disturbed by the way in which houses would be built by the department or their cost, which would certainly be a notable contribution to getting the people housed as quickly as possible.

Mr. W. R. Smith, in supporting the vote, said so far as contractors were concerned, everyone knew that gross profiteering had taken place in connection with the building of houses necessary for the working people. The whole basis of the criticism of the Office of Works in this connection was because the action of that department would break down the ring which had put up the cost of building houses.—Mr. Perring said local authorities were not prepared to undertake the work of rebuilding out-of-date houses, realising that it involved heavy loss. In Paddington they were urged to hand over twenty houses to the Office of Works, and they objected. As an experiment they handed over one house, with the result that it cost £1,000 more than the original estimate to carry out the work. That was a wasteful and extravagant method of dealing with the problem.

Mr. Lambert protested against the extension of departmental authority in the building trade. In his opinion they never had executed and never would execute public works economically and efficiently.

Major Hall in supporting the vote, said the Labour Party, which was doing its best to restrict labour, was now endeavouring to prevent more men being employed in the building industry. He thought it was a Socialist conspiracy to retard the building of houses.

Mr. A. Hopkinson said the vote was one of a series which had been rendered necessary owing to the refusal of the Government and the House to admit the obvious and complete failure of the housing policy. There had always been rings in the building trade where Governments and municipalities were concerned, and the causes why they were now stronger than ever must be investigated. Men employed on manual work in Government departments were most inefficient. In the long run, the vote involved the nationalisation of another industry.

Sir J. Tudor Walters said the question of nationalisation was not at issue. Certain local authorities, chiefly in London, had found it almost impossible to find contractors prepared to undertake housing work. Owing to the fact that so many contracts were available, and that very high prices were being asked, and in order to avoid considerable delay in carrying out those urgent works, the Ministry of Health decided that the Office of Works, a very highly-organised department, should be asked, purely as a temporary measure, to undertake the erection of some of the houses. They found that in some cases the Office of Works could carry out the work at prices lower than the estimates submitted by contractors. Personally, he was not in favour of any general policy of nationalisation in regard to building. He desired, at the earliest possible moment, to see the resuscitation of the ordinary method of business, which he believed would mean more rapid and more economic building; but he was entirely satisfied that for the immediate necessities of the case the policy pursued by the Ministry of Health was a sound one. The work had been done more cheaply than would have been possible by any other means. But in normal times and with ordinary competition he was satisfied that the work could be done at a lower price than that at which even the Office of Works could do it.

Mr. T. Thompson said, realising that private enterprise had failed to meet the requirements, he hoped the Office of Works would be allowed to continue its help until the shortage was brought to an end.

Sir Alfred Mond said he could guarantee that none of the £200,000 asked for in the estimate would fall upon the Exchequer.

Mr. W. Graham said builders had never before been so combined, with the result that prices were being forced up. The proposal of the Office of Works would help in the solution of the housing difficulty.

Lord Hugh Cecil said the proposal involved the nationalisation of trade, and he hoped it would not be supported.

Sir Alfred Mond said the department would not step in unless it were asked to do so.

On a division the vote was carried by 190 votes to 64.

THE SEVERN POWER SCHEME.

WE have received from the Ministry of Transport some particulars of the Severn barrage, road and railway scheme, in which it is stated that the principal characteristics which distinguish the tidal power scheme from a hydro-electric installation of the usual description are, first, that the power is only obtainable intermittently according to the state of the tide, and, second, that even while the turbines are at work the conditions of head are continually varying. In the scheme under consideration for the Severn the working period for the turbines occurs shortly after the ebb tide has commenced to run and continues throughout the hours of low water and until the tide has risen to about half its height. Owing to the fact that the ebb-tide in the Severn occupies a longer period than the flood tide, it is possible to obtain a working period for the turbines of approximately seven hours, followed by the period of five hours during which no power is obtainable. The head under which the turbines work would be to commence with about 5 feet, and towards the middle of the 7-hour working period it would increase to a maximum (on Spring tides) of 30 feet.

As regards the distribution of the energy, four principal outlets are looked for. The first of these is in the immediate neighbourhood of the Severn, and would be created by the growth of industries requiring cheap power on the banks of the river, in very much the same way as there has arisen a group of power absorbing industries in the neighbourhood of the Niagara Falls. The second outlet would be in the industrial area of South Wales, the whole of which lies within a radius of 50 miles of the Severn barrage. A third outlet for the energy would be found in the English Midlands. Birmingham is approximately 70 miles and Stoke-on-Trent approximately 100 miles distant from the barrage. It is anticipated that there will be considerable difficulty in setting up of steam "super power stations" in the Midlands on account of the lack of condensing water available in that area, and on this account the supply from the Severn would be particularly advantageous. The fourth outlet is the Thames Valley and London. London is 115 miles from the barrage, and it may be possible to transmit the energy at 120,000 volts in this instance. The cost of a transmission line to London capable of conveying half-a-million kilowatts with a ten per cent. loss in the line would be approximately one-and-a-quarter millions sterling. The cost of the line and the transmission loss taken together would, therefore, only add a small fraction of a penny on the cost of the B.O.T. unit delivered in London.

It is thought that the appropriate use for the electrical energy of the Severn, having in view the storage reservoir and storage power house which is capable of producing peak load output at short notice, is to apply the energy to take up the peak load in industrial areas. That is to say, the Severn scheme can be made to work largely in conjunction with steam generating stations in such a way as to enable the latter to work with a load factor of from 70 per cent. to 80 per cent. instead of from 20 per cent. to 50 per cent. as at present.

THE BUILDING TRADE.

APPRENTICESHIP PROBLEMS.

THE following is an abstract of an interesting lecture recently delivered by one of H.M. Inspectors before the Northern Section of the British Institute of Certified Carpenters, at the College of Technology, Manchester:—

After outlining the history of apprenticeship and the old guild system, the lecturer said that great changes had been maturing in the building industry in recent years, the full effects of which were only now beginning to be realised. Buildings now were not only bigger than they were 20 or 30 years ago, but they were different; there was less handwork and more machine work, less of the personal touch and more division of labour; there were a multitude of trades and there was no master-mind with the power to co-ordinate completely the efforts of the army of workers. The small firms were restricted to the small jobs and to repairs, where the craftsmanship was of the lowest order, because clients could not afford anything better. Nor did the large firms, as a rule, take their full share of apprentices, the supply being kept up mainly by the small builder, who was well aware of the fact that the best of the men whom he trained would pass eventually to the big firms, while he would have to rest content with the poorest of service. Further, all the valuable experience to be got out of big and expensive work was more or less lost to the apprentices of any given period, partly, no doubt, through the prevalence of sub-contracting, but mainly because there was no organised effort made to use to the full the educational value of contact with the best practice available. Lastly, it had to be remembered how the building industry was recruited, the slight value placed upon any general educational or technical qualifications, the entire absence at any stage of any test of skill, and the lack of any control, which allowed even the most undesirable person to set up as a master-builder and to undertake the responsible task of training apprentices.

There were two important principles on which general agreement might be expected in the selection of new entrants into the industry. First, that it was neither possible nor desirable that a rigid scheme should be laid down which neither admitted of any modifications to suit varying conditions nor arranged for any machinery to meet changes in the industry; and, second, that the day was probably past when they could be satisfied with a scheme of apprenticeship which recognised merely the apprentice and his master as the only persons concerned in the transaction. The parent or guardian must be the third party to any properly-arranged apprenticeship; and for a fourth there should be a representative of the community at large, who would usually be most fittingly drawn from the local education authority.

Particularly in connection with the building industry a number of apprenticeship schemes had been produced recently which were excellent both in content and in intention, and were remarkable in that they were more or less in agreement on fundamental points. The proposals contained in the scheme of apprenticeship prepared by the Industrial Council for the Building Industry might be briefly summarised as follows:—The most important departure from accepted practice was contained in the proposal to form a Local Building Trades Apprenticeship Committee in every district where its existence could be justified. The composition of such a Committee was of extreme importance, since upon its competence rested the success of the whole scheme. That was dealt with in Part I of the scheme, which stated:—"This Committee shall be composed of representatives appointed as to one half by the associations of employers, and as to the other half by the associations of workpeople in the industry in the district." The Committee had, however, power to add to its constitution not more than three representatives from the local education authority, two from the Local Advisory Committee for Juvenile Employment or Choice of Employment Committee, and one representative who was directly concerned with the teaching of trade, to be appointed by the local education authority or otherwise. There was thus a recognition of the idea that apprenticeship was some concern of the community as well as of the industry, and also that the instruction of apprentices was a matter for expert advice. The functions of the Committee covered a wide range; they were summarised in the scheme as follows:—

(1) INFORMATION: "To arrange for addresses and for the distribution of appropriate literature to the boys in the schools, upon the possibilities, &c., of the trades in the industry, *i.e.*, to stimulate the interest of the boys in craftsmanship. . ."

(2) SELECTION AND ADVICE: "To interview (with their parents) the boys who desire to enter a trade within the industry. . . ."

(3) RECOMMENDATION: "To recommend suitable boys to employers who have the right kind of vacancy."

(4) SELECTION OF EMPLOYERS: "To prepare lists of employers who have the necessary facilities . . . for trainnig in a given trade."

(5) SUPERVISION: "To ensure by means of visits, regular reports, and occasional interviews, that the youth is receiving the right kind of training, both in the workshop and in the technical institution, during his period of apprenticeship."

(6) CONSULTATION WITH THE EDUCATION AUTHORITY: "To consult with the local education authorities in regard to the equipment, selection of instructors, curriculum, &c., in the technical institution, with particular reference to the courses to be provided in the day continuation schools to be established under the Education Act of 1918."

(7) TRANSFERS: "To provide, under exceptional circumstances, for the transfer of an apprentice from one employer to another to enable a youth to receive special training."

(8) PROMOTION: "To encourage advanced training in suitable cases where capacity is shown for posts of responsibility in the industry."

(9) WELFARE: "To promote the physical, social and moral well-being of the youth by working in conjunction with juvenile organisation committees, boys' clubs, &c."

(10) SEMI-SKILLED OCCUPATIONS: "To consider and provide for the position of those youths in the industry who cannot become craftsmen, but for whom continuity of employment in another capacity may be available."

The second part of the scheme dealt mainly with the procedure concerning entry into the industry. The third part dealt with age of entry, &c., The age of entry might lie between 14 and 17 years of age, but the apprenticeship must terminate at the age of 21 years. The shortened apprenticeship was only intended for those willing and able to put in their time, right up to the age of entry, at a full-time course of day instruction at a suitable school, and a boy who in that way commenced his apprenticeship at, say, 16 years of age would receive wages as though it were the third of a 7 years' apprenticeship. If desired, a boy might be indentured at the age of 14 years, although his next two years might be spent at school. The boy was thus brought into contact with the Apprenticeship Committee, who could then follow his progress.

The fourth part of the scheme dealt with the training of the apprentice, and was very important. It provided that: "The training shall be a combination of:—

(1) INSTRUCTION IN THE WORKSHOP AND/OR ON JOBS: (*a*) The employer shall undertake that every opportunity and facility be given to the boy to learn the trade to which he is apprenticed; (*b*) the employer shall be responsible for seeing that the boy is engaged on progressive work necessary to his complete training as a craftsman; and (*c*) the boy shall not be employed on labouring work other than the limited amount incidental to his training in the trade.

"(2) INSTRUCTION IN THE CONTINUATION SCHOOL: (*a*) All boys indentured as apprentices under the scheme shall, as a condition of their indenture, attend a day technical school, up to the age of 16 years, for not less than one whole day per week or two half-days per week . . . without deduction from his wages; he shall further be bound during this period to attend evening classes for not less than two evenings per week during the school session. The school attendance shall be certified from time to time to the Apprenticeship Committee, the employer and the guardian. (*b*) From 16 to 18 years the apprentice shall attend, during the school session, evening classes in connection with the work of his trade for not less than two evenings per week; attendance at such classes should be continued during the remainder of the period of apprenticeship."

The fifth part of the scheme dealt with hours of work, overtime and holidays. The sixth part dealt with youths who might enter the industry very late. The seventh part of the scheme set out powers possessed by the Committee to modify the terms of the scheme from time to time, to arrange for the transfer of apprentices, and to arrange for the cancellation of an indenture under certain circumstances.

Attached to the scheme was a suggested form of indenture embodying the points indicated above. It was interesting to note that the parties who signed the indenture were the employer, the apprentice and his guardian, and the chairman of the Apprenticeship Committee. A suggested minimum scale of wages was also attached, based on the journeyman's rate for the district, and commencing at 14 years of age with 17 per cent. of the adult wage, and rising with yearly increments to 65 per cent. at 20 years of age.

The scheme of the Industrial Council for the Building Industry embodied most of the principles which appeared to be essential to success. From the very nature of the problems solutions had yet to be found for many of them, and some of the most important functions of the Committees would be to seek out new methods, to experiment, and, if possible, to register progress along some of the more difficult paths which must be traversed if the highest possible efficiency was to be obtained in the industry in this important matter. Without the hearty co-operation of all the parties concerned little or no progress was possible; with it the immediate difficulties connected with the introduction of the scheme would become comparatively easy. It must be realised that the training of skill and knowledge in a craft or an industry was a long and tedious process. They were building for the future, and must take the long view; if they were compelled to build slowly they ought certainly to try to build well, since the future of the industry depended upon their efforts. Apart from the general benefits arising from it, the introduction of such a considered scheme of apprentice training would help enormously in improving craftsmanship and in increasing the productive powers and technical knowledge of the industry as a whole.

CEMENT PRODUCTION IN BELGIUM.

WE have received the following communication from the Department of Overseas Trade :—

The Belgian Press of October 22 and 23 noted the formation of a union of Portland cement manufacturers known as the "Groupement de Fabricants Belges de Ciment Portland Artificiel," and after giving a list of the firms included in the Union, stated that an agreement had been concluded between the Government and these manufacturers with regard to the supply of cement for public services. The agreement fixes the price per ton on wagon or on boat, and the price allowed on the sacks when they are returned. These prices are subject to alteration.

The monthly production in Belgium of 50,000 tons is divided up as follows :—For the State, 14,000 tons ; for domestic consumption, 11,000 ; and for exportation, 25,000 tons. In the event of the State and the rest of the country not utilising the whole of the 25,000 tons, authorisation will be given for the remainder to be exported.

As a result of this agreement the necessary cement for public works will be provided by the State or by an agent of the Government. The State will provide reasonable quantities direct from their own stocks, whereas larger amounts must be obtained from the factories, which will supply the cement at the price arranged by the Government. The cement industry has made great efforts towards recovery since the Armistice, and at the present time the production of the factories is about two-thirds of that of 1913. This applies to all the factories with the exception of the "Cannon" brand factory at Burght, which was completely destroyed by the enemy.

It is anticipated that by the end of the year the production in this industry will equal that of pre-war days, provided that the supply of coal does not fail. In the course of next year several manufacturers are increasing their number of ovens, and this will result in an increase of production equal to at least a quarter the present quantity produced. In these conditions it is hoped that the Government will do all in its power to assist the cement manufacturers in the exportation of their goods.

Wages in the Building Trade.

The demand of the Merseyside building trade operatives for an increase in wages of 8d. per hour and allowances for tool money has been met by the Liverpool, Birkenhead, and Wirral District Building Trade Employers' Association with a notice for a reduction of 4d. per hour for skilled men, and 6d. per hour for labourers, the discontinuance of the present joiners' tool allowance, and other modifications.

The National Conciliation Board for the Building Trade, at a meeting on Friday last week, failed to arrive at any decision on the Operatives' claim for an increase of 8d. per hour for both skilled men and labourers in the London area. Mr. J. Murrey, Secretary for the London District Council of the National Federation of Building Trade Operatives, is reported as having said that the Council of the Federation had decided to take no further action at present to enforce the demand of the London district for an increase of wages. The only step open for the Council after the Conciliation Board had failed to give a decision was, he said, to accept the position under protest or take direct action. The Council unanimously decided that at present no further action be taken in the matter, but to notify the employers of its intention to raise the question of an advance of wages and an improved status next spring.

The Wembley Heating Co., Ltd., have removed from 1, Neeld-parade, to larger new offices at 1, Central House, Wembley-hill. Their telephone number, Wembley 104, and telegraphic address, "Heating, Wembley," will remain as before.

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the building trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Bricklayers' Labourers.	Plasterers' Labourers.
Aberdare	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Accrington	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Altrincham	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Ashton-under-Lyne	2/4	2/4	2/4	2/4	2/4	2/5	2/4	2/0–2/0½	
Barnsley	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Barrow-in-Furness	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Barry	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Bath	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Bedford	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Birkenhead	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0½	
Birmingham	2/4	2/4	2/4	2/4	2/4	2/5	2/4	2/1	
Bishop Auckland	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Blackburn	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Blackpool	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Bolton	2/4	2/4	2/4	2/4	2/4	2/3	2/4	2/0–2/0½	
Bournemouth	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Bradford	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Bridgwater	1/10½	1/10½	1/10½	1/10½	1/10½	1/10½	1/10½	1/7½	
Brighton	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Bristol	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Burnley	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Burton-on-Trent	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Bury	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Cambridge	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Cardiff	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Chatham	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Chelmsford	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Cheltenham	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Chester	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Chesterfield	2/4	2/4	2/4	2/4	2/4	2/–	2/4	2/1	
Colchester	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Coventry	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Crewe	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/10½–1/11	
Darlington	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Derby	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Doncaster	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Dudley	2/2½	2/2½	2/2½	2/2½	2/2½	1/10½	2/2½	1/11½	
Durham	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
East Glam. and Mon. Valleys	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Exeter	2/–	2/–	2/–	2/–	2/–	2/–	1/11	1/9	
Folkestone	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Gloucester	2/–	2/–	2/–	2/–	2/–	2/–	1/11	1/9	
Grantham	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Grays	2/4	2/4	2/4	2/4	2/4	2/4½	2/3	2/1	
Grimsby	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Great Yarmouth	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Guildford	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Halifax	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Harrogate	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Hartlepools	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Hastings	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Hereford	2/–	2/–	2/–	2/–	2/–	2/–	1/11	1/9	
Huddersfield	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Hull	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Ipswich	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Lancaster	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Leamington Spa	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Leeds	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Leicester	2/4	2/4	2/4	2/4	2/4	2/4½	2/4	2/1	
Lichfield	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Lincoln	2/4	2/4	2/4	2/4	2/4	2/–	2/4	2/1	
Liverpool	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0½	
Llanelly	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
London	2/4	2/4	2/4	2/4	—	2/4½	2/3	2/1	
Loughborough	2/4	2/4	2/4	2/4	2/4	2/4½	2/4	2/1	
Luton	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Maidstone	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Manchester	2/4	2/4	2/4	2/4	2/4	2/3	2/4	2/0–2/0½	
Mansfield	2/2½	2/2½	2/2½	2/2½	2/2½	2/3	2/2½	1/11½	
Merthyr Tydfil	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Middlesbrough	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Newcastle-on-Tyne	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Newport, Mon.	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Northampton	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Norwich	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Nottingham	2/4	2/4	2/4	2/4	2/4	2/4½	2/4	2/1	
Oakham	2/1	2/1	2/	2/1	2/1	2/1	2/1	1/10	
Oldham	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Oxford	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Plymouth	2/1	2/1	2/1	2/1	2/1	2/1	2/–	1/10	
Pontypridd	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Portsmouth	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Preston	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Reading	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Rochdale	2/4	2/4	2/4	2/4	2/4	2/5	2/4	2/0–2/0½	
Rochester	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Rugby	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
St. Albans	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/8	
St. Helen's	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Scarborough	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Sheffield	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Shrewsbury	2/2½	2/2½	2/2½	2/2½	2/2½	1/10½	2/2½	1/11½	
Southampton	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Southend-on-Sea	2/0½	2/0½	2/0½	2/0½	2/0½	2/0½	1/11½	1/9	
Southport	2/4	2/4	2/4	2/4	2/4	2/–	2/4	2/0–2/0½	
South Shields	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Stockport	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Stockton-on-Tees	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Stoke-on-Trent	2/2½	2/2½	2/2½	2/2½	2/2½	1/10½	2/2½	1/11½	
Stroud	2/–	2/–	2/–	2/–	2/–	2/–	1/11½	1/9	
Sunderland	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Swansea	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Taunton	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Torquay	2/–	2/–	2/–	2/–	2/–	2/–	2/–	2/1	
Wakefield	2/4	2/4	2/4	2/4	2/4	2/4	2/4	1/11½	
Walsall	2/2½	2/2½	2/2½	2/2½	2/2½	2/3½	2/2½	2/0–2/0½	
Warrington	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
West Bromwich	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Wigan	2/4	2/4	2/4	2/4	2/4	2/4	2/4	1/9	
Windsor	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/10½	
Wolverhampton	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Worcester	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
York	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½		

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this number. Contracts iv; Competitions iv; Public Appointments lxxviii Sales by Auction lxxxii. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

DECEMBER 11.—**Bacup.**—PAINTING.—For painting interior of Primitive Methodist Church, &c. Rev. J. Bilton, Orchard-villas Bankside, Bacup.

DECEMBER 11.—**Huddersfield.**—ADDITIONS, &C.—Additions to the Huddersfield West Riding Court House, for the West Riding Standing Joint Committee. West Riding Architect, County Hall, Wakefield.

DECEMBER 11.—**Tarvin.**—HOUSES.—Erection of 4 pairs of semi-detached cottages, for the R.D.C. Mr. W. Beswick, A.R.I.B.A., 19, Newgate-street, Chester. Deposit, £2.

DECEMBER 13.—**Aberdeen.**—SUB-STATION.—Erection of sub-station at Jameson's Quay, for the T.C. Electricity Dept. City Electrical Engineer, Milburn-street, Aberdeen.

DECEMBER 13.—**Bradford.**—PAINTING.—Colouring, &c., at various schools, for the T.C. City Architect, Town Hall, Bradford.

DECEMBER 13. — **Burton-on-Trent.**—HOUSES.—Erection of 158 houses on various sites and for lay-out of Hatton Site, for the Repton R.D.C. Mr. Thomas Jenkins, L.R.I.B.A., Arcade Buildings, Station-street, Burton-on-Trent.

DECEMBER 13.—**Evesham.**—CONVENIENCE.—Erection of convenience adjoining town hall, for the T.C. Mr. J. Abbott, Borough Surveyor, Town Hall, Evesham. Deposit £1 1s.

DECEMBER 13.—**Glasgow.**—SUB-STATION.—Erection of a sub-station at Main-street and Holm-street, for the Electricity Department. Electrical Engineer, 75, Waterloo-street, Glasgow.

DECEMBER 13.—**Hackney.**—REPAIRS, &C.—Repair, cleaning, painting, &c., of the steward's residence and domestic staff homes, at the Infirmary, Homerton, E.9. for the Board of Guardians. Mr. Frank R. Coles, Clerk, Hackney Union, 2, Sidney Road, Homerton, E.9.

DECEMBER 13.—**Liverpool.**—EXTENSION.—Extension of the Liverpool Bank Telephone Exchange, for H.M. Commissioners of Works. Director of Contracts, H.M. Office of Works, London. Deposit, £1 1s.

DECEMBER 13.—**Macclesfield.**—HOUSES.—Erection of 12 houses, for the R.D.C., at Gawsworth. Mr. A. E. Bradburn, architect, 19, King Edward-street, Macclesfield. Deposit £2 2s.

DECEMBER 13. — **Musselburgh.**—HOUSES.—Erection of 14 houses at Campie, for the T.C. Mr W. Constable, 3, Hill-street, Edinburgh.

DECEMBER 13.—**Pontlottyn.**—POLICE COURT.—Erection of police court, for the Glamorganshire Standing Joint Committee. Quantities at Police Station, Pontlottyn.

DECEMBER 13.—**Pontypridd.**—POLICE COURT.—Erection of new police court, for the Glamorganshire Standing Joint Committee. Quantities at Pontypridd Police Station.

DECEMBER 13.—**Portsmouth.**—ALTERATIONS.—For alterations and additions to Edgcombe House, for the E.C. Mr. A. J. Sharp, Architect, Town Hall, Portsmouth.

DECEMBER 13.—**St. John's Town of Dalry.**—HOUSES.—Erection of six blocks, comprising 12 houses, for the Northern District Committee of the C.C. Mr. Alex. Milroy, District Clerk, Dalry, Kirkcudbrightshire

DECEMBER 13.—**Thorne.**—HOUSES, &C.—Erection of 76 houses, and construction of roads and sewers, for the R.D.C. Mr. J. B. Richardson, architect, 6, Priory-place, Doncaster. Deposit, £2 2s.

DECEMBER 13. — **Tutbury, Burton-on-Trent.**—HOUSES.—Erection of 40 houses on various sites for the R.D.C. Mr. Thomas Jenkins, L.R.I.B.A., Arcade Buildings, Station-street, Burton-on-Trent.

DECEMBER 13.—**Wallasey.**—EXTENSIONS.—Alterations and extensions at the Generating Station, Poulton, for the T.C. Electricity Department, Seaview-road, Wallasey.

DECEMBER 13. — **Warrington.** — SCREEN. — For a glazed screen to be erected at the Queen-street end of the General Markets, for the T.C. Mr. Andrew M. Ker, Borough Engineer, Warrington.

DECEMBER 13.—**Wiltshire.**—Construction of sewage and sewage disposal works for the Cricklade and Wooton Bassett R.D.C. Council's Consulting Engineer, Major T. J. Moss Flower, 28, Victoria-street, Westminster. Deposit, £10 Bank of England Note.

DECEMBER 14.—**Ashbourne.**—HOUSES.—Erection of three pairs of cottages at Biggin, Hartington Nether Quarter, for the R.D.C. Mr. J. H. Wheeldon, Compton Offices, Ashbourne. Deposit, £1 1s.

DECEMBER 14.—**Buxton.**— LAVATORIES.—For various trades (except painters) required in the erection of lavatories, Bridge-street, for the T.C. Mr. F. Langley, Borough Surveyor, Town Hall, Buxton. Deposit, £1 1s.

DECEMBER 14.—**Langholm.**—HOUSES.—Erection of 10 blocks of two houses each, for the T.C. Mr. J. B. Gladstone, 100, High-street, Lockerbie. Deposit, £2 2s.

DECEMBER 14.—**Swansea.**—Alterations to the head post office at Swansea. The Secretary, H.M. Office of Works, Storey's-gate, Westminster, S.W.1. Deposit, £1.

DECEMBER 14.—**Wallasey.**—REBUILDING.—Alteration and rebuilding of an existing brickwork structure to form a combined stores and workshop, together with the demolition of another existing building, for the Gas and Water Dept. Mr. J. H. Crowther, Gasworks, Limeklin-lane, Wallasey.

DECEMBER 15.—**Bangor.**—HOUSES.—Erection of sixteen houses (Class A) on Penchwintan-road, twelve Houses (Class B) on Carnarvon-road, for the B.C. Mr. W. G. Williams, architect, Bangor. Deposit, £2 2s.

DECEMBER 15.—**Hackney.**—MAISONNETTES. — Erection of buildings in blocks comprising 62 maisonnettes, for the Metropolitan Borough of Hackney. Borough Engineer and Surveyor's office, Town Hall, Mare-street, Hackney, E.8. Deposit, £1 1s.

DECEMBER 15.—**Kirkcaldy.**—HOUSES.—Erection of 118 houses for the T.C. Mr. James Gentles, 184, High-street, Kirkcaldy. Deposit, £1 1s.

DECEMBER 16.—**Salford.**—PAINTING.—Repainting, &c., of certain bridges over the River Irwell and a canal, for the T.C. Borough Engineer, Salford.

*DECEMBER 16.—**St. George's-in-the-East.**—ALTERATIONS, &C.—Renovating and making certain alterations to the able-bodied men's block at the workhouse, Raine-street, Old Gravel-lane, E. 1, for the St. George's Board of Guardians. Mr. R. M. Lochner, Clerk, Guardians' Offices, Raine-street, Old Gravel-lane, E. 1.

DECEMBER 17.—**Escrick.**—HOUSES.—Erection of six cottages at Naburn, near York, and six at Deighton, for the R.D.C. Mr. Fred T. Penty, architect, Lendal Chambers, York.

DECEMBER 17.—**Llanrwst.**—HOUSES.—Erection of 20 houses for the U.D.C. Mr. I. Latimer-Jones, Clerk, 11, Station-road, Llanrwst. Deposit, £1 1s.

DECEMBER 17.—**Monmouthshire.**—HOSPITAL.—Erection of a hospital for consumptives at Pontypool-road, Monmouthshire, for the King Edward VII Welsh National Memorial Association. Mr. Edwin T. Hall, F.R.I.B.A., and Mr. E. Stanley Hall, M.A., F.R.I.B.A., of 54, Bedford-square, London. W.C. 1. Deposit, £5,

*DECEMBER 17.—**Watford.**—Alterations and additions to "Lady's Close," Watford Grammar Schools. Mr. Frederick Wilson, Clerk to the Governors of the Watford Grammar Schools, Watford-place, Watford. Deposit, £1 1s.

DECEMBER 18.—**Brierfield.**—HOUSES.—Erection of 50 houses at Bent Head, Brierfield, for the U.D.C. Messrs. Adshead & Topham, architects, 23, King-street, Manchester. Deposit, £10.

DECEMBER 18. — **Cheltenham.**—HOUSES.—Building of 40 brick and concrete block houses on the Corporation housing estate. Messrs. Chatters, Smithson & Ranger, Regent-street, Cheltenham. Deposit £2 2s.

DECEMBER 18.—**Greenock.**—SCHOOL.—Erection of special school, for the Renfrew E.C. Executive Officer, County Education Offices, Paisley. Deposit, £1 1s.

DECEMBER 18.—**Heage.**—HOUSES.—Erection of two pairs of houses on Nether Heage site, for the U.D.C. Col. Maurice Hunter, architect, Belper.

DECEMBER 18.—**Knottingley.**—MEMORIAL.—Illustrations and estimates for erection of war memorial, to cost approximately between £1,200 and £1,500, including erection, for the War Memorial Committee. Messrs. Burton Arnold and Walter Swaine, Hon. Secretaries, Town Hall, Knottingley.

DECEMBER 18.—**Leeds.**—TRANSFORMER CHAMBER.—Erection of a transformer chamber (overground), for the T.C. Mr. C. Nelson Hefford, Electricity Dept., 1, Whitehall-road, Leeds.

DECEMBER 20.—**Chipping Sodbury.**—HOUSES, &C.—Erection of eight houses at Hawkesbury Upton and six at Badminton, and drainage works at both sites, for the R.D.C. Housing Architect, Chipping Sodbury. Deposit, £1 1s.

DECEMBER 20.—**Chorlton-cum-Hardy.**—TELEPHONE EXCHANGE.—Erection of a new telephone exchange. Director of Contracts, H.M. Office of Works, Storey's-gate, Westminster, S.W. Deposit, £1 1s.

DECEMBER 20.—**Finchley.**—SLATES.—Laying and part supply of slates in connection with the Finchley Housing scheme. The Secretary, H.M. Office of Works, Storey's-gate, Westminster, S.W.1.

DECEMBER 20.—**Marple.**—HOUSES.—Erection of 50 houses, for the U.D.C. Mr. D. J. Diver, surveyor, Marple. Deposit, £1 1s.

DECEMBER 20.—**Neath.**—HOUSES.—Erection of 367 houses in brickwork in various parishes, for the R.D.C. Thirteen contracts. Mr. D. M. Davies, Council Offices, Neath. Deposit, £2 2s. each contract.

DECEMBER 20.—**Orsett (Essex).**—HOUSES.—Erection of 22 houses under the Housing Acts in the Parish of South Ockenden. Mr. James Beck, Clerk to the Council, 2, Orsett-road, Grays. Deposit £3 3s.

DECEMBER 20.—**Thorne.**—HOUSES.—Erection of 299 houses at Stainforth, Doncaster, for the R.D.C. Messrs. F. Hopkinson & Co., architects, Worksop. Deposit, £2 2s.

DECEMBER 20.—**Uppingham.**—HOUSES.—Erection of 130 brick cottages in pairs, in various parishes, for the R.D.C. Mr. George Dolphin, architect, North-street, Uppingham. Deposit, £2 2s.

*DECEMBER 21.—**Blean, Canterbury.**—HOUSES.—Erection of 20 houses (in pairs) on the Hunters Forstal site No. 1, in the Parish of Herne, near Herne Bay, Mr. F. A. Ward, Union Workhouse, Herne Common. Herne, near Herne Bay.

DECEMBER 21.—**Clutton.**—HOUSES.—Erection of six houses on Temple Cloud. Messrs. Petter & Warren, architects, 74, Henford, Yeovil.

DECEMBER 21.—**Lochinver.**—HOUSES.—Erection of six houses in three blocks at Lochinver, and also road work, for the Sutherland C.C. Messrs. Horne & Murray, architects, Golspie. Deposit, £1 1s.

DECEMBER 27.—**Middleton.**—HOUSES.—Erection of 64 houses, for the T.C. Borough Engineer, Town Hall, Middleton, Lancs. Deposit, £2 2s.

*DECEMBER 29.—**Birmingham.**—HOUSES.—Builders and contractors desirous of tendering for erection of houses on various sites are requested to send their names to Mr. Frank T. Cox, Housing Director, City of Birmingham, Moat-lane, Birmingham.

DECEMBER 29.—**Denton.**—HOUSES.—Erection of twenty-four houses on the Haughton Hill Estate, for the T.C. Mr. John B. Cooke, Surveyor, Town Hall, Denton. Deposit, £1 1s.

*DECEMBER 29.—**West Kensington.**—Excavation of the site in connection with the extension of the Savings Bank, Blythe-road. Director of Contracts, H.M. Office of Works, Storey's-gate, Westminster, S.W.1. Deposit 1 guinea.

*DECEMBER 31.—**Bermondsey.**—COTTAGES.—Erection of three cottages in Grange-place, Lower-road, Rotherhithe, S.E. Mr. Frank Ryall, Town Clerk, Town Hall, Spa-road, S.E.16. Deposit, £2 2s.

*DECEMBER 31.—**Cottingham.**—HOUSES.—Erection of 36 houses on land adjoining Southwoods-road, for the U.D.C. Mr. H. Andrew, Custom House Buildings, Whitefriargate, Hull. Deposit £4 4s.

*DECEMBER 31.—**Dartford.**—Estimates, designs, and particulars are invited for the erection of a memorial cross in Scotch granite. Mr. S. Martin, Hon. Sec., "The Dees," Watling-street, Dartford, Kent.

JANUARY 3, 1921.—**Kent.**—HOUSES.—Erection of houses for the staff and teachers, for the Kent Education Committee, County of Kent. Mr. W. H. Robinson, Council's Architect, 63, Sessions House, Maidstone. Deposit £2.

JANUARY 6. — **Bexley Welling, Kent.**—SCHOOL BUILDING.—Enlargement of the Bexley Welling Infants Council School by the addition of 80 places, for the Kent Education Committee. Mr. W. H. Robinson, Architect, 63, Sessions House, Maidstone, Deposit, £2.

*JANUARY 14.—**Skipton.**—HOUSES, ROADS, AND SEWERS.—(1) Erection of 8 parlour houses and 10 scullery houses, (2) road-making and sewering. Tenders endorsed; (1) tender for Housing; (2) tender for street-making and sewering. Mr. Aldridge, Council Offices, Skipton. Deposit £1 1s.

*JANUARY 17.—**West Ham.**—ALTERATIONS AND ADDITIONS.—Alterations and additions to the Fyfield Industrial School, near Ongar, Essex, for the County Borough of West Ham. Mr. John H. Jacques, Architect to the Education Committee, 2, Fen Court, Fenchurch-street, E.C. 3. Deposit, £5 Bank of England note.

NO DATE.—**Clayton.**—HOUSES.—Erection of 40 houses, at Clayton Heights, for the U.D.C. Messrs. Carby Hall & Dawson, architects, Prudential Buildings Park-row, Leeds.

NO DATE.—**Pateley Bridge.**—HOUSES.—Erection of 14 houses at Pateley Bridge and six at Birstwith, for the R.D.C. Mr. E. Moorhouse, Clerk, Pateley Bridge.

*NO DATE.—**Short Heath, Willenhall.**—HOUSES.—Erection of 90 houses (brick built and slated), 32, 26 and 32 houses respectively), for the U.D.C. Mr. Henry Vale, F.S.I., Darlington-street, Wolverhampton. Deposit, £3 3s.

NO DATE.—**St. Faith's.**—HOUSES, &C.—Erection of eight houses at Drayton and four at Spixworth, and for the sinking of wells at Drayton and Spixworth, for the R.D.C. Mr. T. Inglis Goldie, architect, Stiffkey Wells.

NO DATE.—**St. Faith's.**—HOUSES.—Erection of 14 cottages at Lenwade, Attlebridge and Alderford, for the R.D.C. Mr. Geo. J. Skipper, architect, 7, London-street, Norwich.

NO DATE.—**Whimple.**—FARMHOUSE.—Erection of new farmhouse and buildings, &c., on Crockernhayes Farm, Whimple, for the Devon C.C. Mr. W. J. M. Thomasson, architect. 8, Colleton-crescent, Exeter.

FURNITURE, MATERIALS, etc.

DECEMBER 13. — **Trowbridge.** — MATERIALS. — The Roads and Bridges Committee of the Wilts County Council invite tenders for road materials, &c. Mr. J. George Powell, County Surveyor, County Surveyor's Office, Trowbridge.

DECEMBER 14.—**London.**—BRASSWORK.—Supply of brasswork (comprising bib cocks, stop cocks, boiler screws, &c.) to H.M. Commissioner of Works. Director of Contracts and Labour, H.M. Office of Works, Storey's gate, S.W.

DECEMBER 14—**Spalding**—ROAD MATERIALS.—Supply of broken granite, slag and grave for the R.D.C. Mr. Ashley K. Maples, Clerk, Spalding.

DECEMBER 15. — **Chelmsford.** — TAR MACADAM.—Supply of tar macadam for one year, to the T.C. Borough Engineer, 16, London-road, Chelmsford.

DECEMBER 15.—**Maidstone.**—MATERIALS.—Supply to the Kent C.C. of road materials. Mr. H. T. Chapman, County Surveyor, Maidstone.

DECEMBER 15.—**Newcastle-on-Tyne.**—MATERIALS.—The Board of Guardians invites tenders of timber, paints and varnishes, hardware, &c. Mr. G. Walker, Clerk, 127, Pilgrim-street, Newcastle-on-Tyne.

DECEMBER 16.—**Manchester.**—MATERIALS.—Supply to the Gas Committee of fireclay and silica goods. Mr. Godfrey W. Kaye, Secretary, Gas Offices, Town Hall, Manchester. Deposit, £1 1s.

DECEMBER 18.—**Lymm.**—LORRY.—Supply of a new "Vulcan" petrol tipping lorry. Surveyor, Council Offices, Lymm.

DECEMBER 20. — **Reading.** — ROAD MATERIAL. — Supply of road material to the Berks C.C. Lieut.-Col. J. F. Hawkins, County Surveyor, Shire Hall, Reading.

JANUARY 31, 1921.—**Johannesburg**—SANITARY FITTINGS. —Supply of sanitary fittings for a public convenience, Union Ground, Johannesburg. Messrs. E. W. Caring & Co., St. Dunstan's-buildings, St. Dunstan's-hill, London, E.C. 3. Deposit, £1 1s.

ENGINEERING, IRON AND STEEL.

DECEMBER 14.—**Manchester.**—MACHINE TOOLS.—Supply to the Tramways Committee of (*a*) turning and boring lathe; (*b*) tyre-turning lathe. Mr. J. M. McElroy, General Manager, Corporation Tramways, 55, Piccadilly, Manchester.

DECEMBER 14.—**Wallasey.**—COKE-HANDLING PLANT, &c.—For (1) Supply and erection of complete coke-handling plant at the Corporation Gasworks (2) Supply and erection of two electrically-operated capstans. Mr. J. H. Crowther, Gasworks, Limekiln-lane, Wallasey.

DECEMBER 14.—**Wembley.**—IRON RAILING.—Supply and erecting of 210 yards of wrought-iron railing, for the U.D.C. Mr. Cecil R. W. Chapman, Surveyor, Council Offices, Wembley, Middlesex

DECEMBER 15.—**Barnoldswick.**—PIPES.—Supply of about 900 tons of cast-iron pipes, mainly 12 in. in diameter, together with special pipes for the Construction of Elslack Aqueduct, for the U.D.C. Mr. E. J. Silcock, Sanctuary House, Tothill-street, Westminster, S.W. Deposit, £5.

DECEMBER 15.—**Eccles.**—ELECTRIC INSTALLATION.—Installation of electric light in the first section of 24 houses now in course of erection on the Anson-street housing site for the T.C. Mr. H. W. Angus, Borough Electrical Engineer, Electricity Works, Cawdor-street, Patricroft. Deposit £1 1s.

DECEMBER 18.—**Sheerness.**—PIPES—Supply of about 33 tons of 5 in., 4 in., and 3 in. cast-iron pipes and special castings, to the U.D.C. Surveyor's Office, Trinity-road, Sheerness.

DECEMBER 18.—**Southport.**—MOTOR SWEEPER.—Supply of a Motor Street Sweeper, to the T.C. Borough Surveyor, Town Hall, Southport.

DECEMBER 20.—**Salford.**—IRONWORK.—For sewers, tanks, filters, cast-iron pipes, valves, &c., at the Sanatorium, Nab Top, Marple, for the T.C. Borough Engineer, Town Hall, Salford.

DECEMBER 26.—**Norwich.**—HEATING INSTALLATION —Supply and fixing of heating installation at Churchmen House, St. Giles-street, for the Health Committee. Mr. A. E. Collins, City Engineer, Guildhall, Norwich.

JANUARY 4, 1921—**Dublin.** — PAVING MATERIAL PLANT.—Supply and erection of plant for the manufacture of tar macadam, asphalte concrete and asphalte surface coat, for the T.C. Mr. Patrick Tobin, Secretary, Paving Committee, City Hall, Dublin.

JANUARY 24.—**Johannesburg.**—STEEL FRAME BUILDING.—Supply to South African Railways Headquarter Offices, Johannesburg, of steel framed building forming extension to saw mill, Salt River Workshops. High Commissioner for the Union of South Africa, 32, Victoria-street, London, S.W. 1.

FEBRUARY 14.—**Palestine, &c.**— CEMETERY CONSTRUCTION.—The Imperial War Graves Commission invite tenders for the construction of (*a*) four cemeteries in Palestine, (*b*) 26 cemeteries at Anzac (Gallipoli), (*c*) 14 cemeteries in Macedonia. Director of Works, Imperial War Graves Commission, 33–36, Baker-street, W. Deposit £10.

MARCH 4.—**Bombay.**—REFUSE DESTRUCTOR.—Manufacture, erection and equipment of a refuse destructor within the City for the incineration of 200 tons of refuse per day. Sir John Wolfe Barry, Lyster & Partners, Dartmouth House, 2, Queen Anne's Gate, Westminster, S.W.1. Charge, 5s.

NO DATE.—**Salford.**—REFUSE PLANT.—Supply and erection at Wilburn-street depot of a clinker crusher, elevator, screens, and hoppers. Borough Engineer, Town Hall, Salford.

ROAD, SANITARY, AND WATER WORKS.

DECEMBER 13.— **Harpenden.**—ROADS. — Construction of roads and sewers, for the U.D.C. Mr. John H. Leverton, Surveyor, Public Hall, Harpenden. Deposit, £2 2s.

DECEMBER 13.—**Headington.**—WATERWORKS.—Construction of water supply scheme for Garsington, for the R.D.C. Mr. A. Walker, "Hill Crest," Headington.

DECEMBER 13.—**Leeds.**—WATER MAIN.—Laying of a 6 in. internal diameter cast-iron pipe line (approximate length, 15,600 yds.), and of 4 in. cast-iron pipe lines (approximate total length, 17,720 yds.), for the T.C. Mr. Chas. G. Henzell, Waterworks Engineer, Leeds.

DECEMBER 13.—**Lewisham.**—PLUMBING.—For sanitary plumbing, &c., in Blocks A and D, South Side of Hospital, for Board of Guardians. Mr. W. R. Owen, Clerk, 394, High-street, Lewisham, S.E.13. Deposit, £1.

DECEMBER 13.—**Romford.**—DRAIN.—Laying 6 in. drain in Market-place, for the U.D.C. Mr. F. C. Beaumont, Surveyor, Romford. Deposit, £2 2s.

DECEMBER 15.—**Barnoldswick.**—WATER MAINS.—The excavators' work for about 4 miles of pipe line, for the U.D.C. Mr. E. J. Silcock, engineer, Sanctuary House, Tothill-street, Westminster, S.W. Deposit, £5.

DECEMBER 15.—**Carluke.**—ROADS, &C.—Construction of sewers, water-pipes and roads in connection with housing schemes at Carluke, and Lesmahagow, for the Lanark C.C. Mr. A. W. Paterson, District Clerk, Lanark.

✱DECEMBER 15.—**Ruislip, Northwood.**—Construction and finishings of roads, and the soil and surface water sewers and manholes in connection with the Council's housing schemes. Mr. Arch. S. Soutar, architect, 8, King William-street, Strand, W.C.2.

✱DECEMBER 16.—**Enfield.**—Construction of roads and sewers at Lavender-hill. Council's Surveyor, Mr. H. R. Crabb, Public Offices, Enfield.

✱DECEMBER 20.—**London, S.W.**—ROAD REPAIRS.—Repairing of carriageway of Chelsea Suspension Bridge, for the L.C.C. Chief Engineer, County Hall, Spring-gardens, S.W. Deposit £3.

DECEMBER 21.—**Neath.**—ROADS AND BRIDGES.—Construction of new roads, bridges, &c., at Dulais Valley, for the R.D.C. Three contracts. Mr. D. M. Davies, Council Offices, Neath. Deposit, £5.

DECEMBER 22.—**Brentwood, Essex.**—REPAIRS TO ROADS.—Repairs to roads at Highwood, Brentwood, in accordance with specifications prepared by Mr. T. Cooper, Engineer-in-Chief, Offices of the Board, Embankment, E.C. 4. Deposit, £1.

DECEMBER 27.—**Whitefield.**—ROADS.—Reconstruction of Moss-lane, about 9,000 sq. yards, for the U.D.C. Mr. George M. Denton, Surveyor, Council Offices, Whitefield, Lancs. Deposit, £2 2s.

DECEMBER 29. — **Whiston.** — SEWAGE DISPOSAL WORKS.—Construction of sewage tanks, &c., for the R.D.C. Mr. H. B. Ward, 15, Lord-street, Liverpool. Deposit £5.

JANUARY 1, 1921.—**France.**—CEMETERIES.—For the third programme of construction consisting of, approximately, 45 cemeteries in France and Belgium. Contract 1920 C., Secretary (Works Branch), Imperial War Graves Commission, 33–38, Baker-street, London, W.

Auction Sales, Tenders, etc.

DECEMBER 13. — **Longford, near Derby.** — Messrs. Weatherall & Green will sell at Longford Hall, near Derby, the antique and modern furniture. Auctioneers, 22, Chancery-lane, W.C. 2.

DECEMBER 14.—**Bramdean, Hants.**—Messrs. Edwin Fear & Walker will sell at "Woodcote Manor," antique furniture and outdoor effects; comprising 20,000 seventeenth century roofing tiles and ridges, 75,000 2 in. bricks, cleaned and ready for use. Auctioneers, Winchester and Newbury.

DECEMBER 14.—**Romford.**—Messrs. Beken & Stokes will sell, by direction of the Disposal Board, at Hare Hall Camp, on main London-road, near Romford (five minutes' from Gidea Park Station, G.E.R.), timber and corrugated iron huts and buildings. Auctioneers: 213, Hoe-street, Walthamstow, Essex, 5.

✱DECEMBER 14 AND 15.—**West Croydon.**—Messrs. J. T. Skelding & Co. will sell, by order of Messrs. Egleton Bros., at No. 57, London-road, and Warehouses, Parsons' Mead, West Croydon.

DECEMBER 15 & 16.—**Fulham, S.W.**—Messrs. Wm. Willett, Ltd., will sell, at Parson's Green, Fulham, S.W., stock of well-seasoned timber and other surplus plant. Auctioneers: Sloane-square, S.W.

✱DECEMBER 16.—**London, E.C.**—Messrs. Waite & Waite will sell, on the vacant site, John-street, Minories, E.C. 3, builders' plant and stock, including other miscellaneous effects. Auctioneer, 4, Holles-street, Oxford-circus, W. 1.

DECEMBER 16.—**Purfleet, Essex.**—Mr. Edward R. Porter will sell, by order of the Disposal Board, at "C" Lines, Purfleet Camp, Essex, 45 huts and other temporary buildings and equipment, and other miscellaneous effects. Auctioneers: 27, 29 & 51, New-road, Grays; King-street, Stanford-le-Hope; and 16, Fenchurch-street, E.C. 3.

✱DECEMBER 16.—**Watford.**—Mr. C. H. Halsey will sell at Chester-road, Watford, woodworking machinery, 300 new scaffold boards, &c. Auctioneers, 33, High-street, Watford.

✱DECEMBER 17.—**Birkenhead.**—Mr. Hugh Toner will sell at 366, Cleveland-street and Duke-street, the machinery and plant, workbenches, 3½-ton Kelly Springfield motor lorry, fixtures, fittings, office furniture, and the stock in trade of concrete and breeze slab manufacturer. Auctioneer, 35 to 37, Exchange-chambers, 2, Bixteth-street, Liverpool.

DECEMBER 17.—**Northamptonshire.**—Mr. Richardson will sell, by direction of the Disposal Board, at Easton-on-the-Hill Aerodrome, Northamptonshire (three miles from Stanford), the whole of the buildings, brick and wooden, and other miscellaneous effects in connection with the aerodrome. Auctioneers: 15, Barn-hill, Stamford; and at Bourne.

✱DECEMBER 17.—**South Benfleet, Essex.**—Messrs. J. T. Skelding & Co. will sell, in Mr. Land's meadow, timber and building materials. Auctioneers, 48, Gresham-street, Guildhall, E.C. 2.

✱DECEMBER 21.—**Walham Green, S.W.**—Also sale at Bucher's Institute Hall, Walham Green, S.W., *re* **Sam Lewis Trust, without reserve,** building materials of twenty houses and shops and other structures. Auctioneers, 48, Gresham-street, E.C. 2.

✱JANUARY 11, 1921.—**London, E.C.**—Messrs. Fuller, Horsley Sons & Cassell will sell by auction in lots at the Commercial Sale Rooms, Mincing-lane, E.C.3., new building materials, plant and machinery, chemical plant. Auctioneers, 11, Billiter-square, E.C.3.

FEBRUARY 15.—**Surrey.**—Messrs. Knight, Frank & Rutley will sell in conjunction with Messrs. King & Everill, freehold modern residence known as "Oaklands" (a few minutes from Kenley Station, S.E. & C. Rly.); also residences, cottages, and "Garston Hall," each having considerable land. Auctioneers, 20, Hanover-square, W.1.

Competitions.

(*See Competition News, page* 656.)

Public Appointments.

DECEMBER 14.—**Cardiff.**—Temporary Town Planning Assistant in the City Engineer's Department. Mr. Cecil G. Brown, Town Clerk, City Hall, Cardiff.

✱DECEMBER 14.—**Dartford.**—Clerk wanted in the Housing Department of the R.D.C. Applications, endorsed "Housing Clerk," to Mr. Eustace J. Hobbs, Clerk, Council Offices, West Hill, Dartford.

DECEMBER 14.—**Singapore, Straits Settlements.**—Two Superintendents of Roads required by the Municipality. Messrs. C. C. Lindsay, & Pierce, 180, Hope-street, Glasgow

✱DECEMBER 15.—**Alcaster.**—Clerk of Works required by the U.D.C. Mr. Harold E. Dicks, M.S.A. Architect, 1, Market-place, Evesham.

DECEMBER 15.—**Coulsdon and Purley.**—Costing, Clerk required in connection with the Council's Housing Scheme. Endorsed "Costing. Clerk," Mr. E. J. Gowen, Council Offices, Purley.

✱DECEMBER 16.—**Enfield.**—Clerk of Works required by the U.D.C. for housing scheme, endorsed "Application for appointment of Clerk of Works," Public Offices, Enfield.

DECEMBER 16.—**London, E.C. 4.**—First Assistant Surveyor required on the Head Office staff of the Metropolitan Asylums Board. Endorse "Application for First Assistant Surveyor," Office of the Board Embankment, E.C. 4.

✱DECEMBER 18.—**Bilston.**—Works Cost Clerk required by the U.D.C. Mr. Edgar Willan, Surveyor and Housing Director, Town Hall, Bilston.

✱DECEMBER 18.—**Gravesend.**—Clerk of Works required for the Council's housing scheme. Mr. H. H. Brown, Town Clerk, 4, Woodville-terrace, Gravesend.

✱DECEMBER 18.—**London.**—Temporary Assistant Instructors in Handicraft (Woodwork). Education Officers, (E.C.2), L.C.C. Education Offices, Victoria Embankment, W.C.2.

✱DECEMBER 20.—**Llangollen.**—Clerk of Works required in connection with the Council's housing scheme, endorsed "Clerk of Works," Messrs. Berrington, Son & Watney, Prudential Chambers, Wolverhampton.

✱NO DATE.—**Uganda.**—Foreman of Works required by the Government of Uganda for the Public Works Department, for a tour from twenty to thirty months' continuous residential service. Crown Agents for the Colonies, 4, Millbank, London, S.W. 1.

NORTHAMPTON POLYTECHNIC INSTITUTE.

THE annual prize distribution at the Northampton Polytechnic Institute took place on Friday last week. The chairman, Mr. A. Barton Kent, in his opening remarks said technical education in this country had not received adequate support; it should not be left to private beneficence, or centralised in one locality only. It was not so much the ratepayers as the taxpayers who should look after it, because the students came from all parts.

Dr. R. Mullineux Walmsley, Principal of the Institute, read an abstract from the Report for the Session 1919–20, the twenty-third annual consecutive report presented at a prize distribution of the "Northampton," which stated that since the last occasion pre-war activities had been more largely resumed. In the session under review the University work of the Polytechnic had developed to very much larger dimensions than it ever reached in pre-war times, and the number in the evening classes had nearly doubled in a single year. The most important part of the day work was that of the Engineering Day College, the number in which rose to 232, as against 154 in the preceding session.

The prizes and certificates for the day and evening classes were distributed by Dr. S. Russell Wells, B.Sc., Vice-Chancellor of the University of London. This country, he said, had in the past a very great reputation for its ability in commerce and ingenuity in industry; but the world had advanced, and while seventy years ago we were practically without rivals, they had now sprung up on every side. As we should no longer think of fighting with the longbow, so must we scrap our old methods in order to compete with the younger nations. Comparing peace and war, he said the fundamentals of each were practically the same, and in entering on another period of peace one of the most remarkable things was the way in which the colleges were crowded to overflowing with students as eager to arm themselves for the coming commercial struggle as they had been to fight for their country, and it was up to the nation to supply the necessary education and training. Business men would have to realise that they must combine and organise for mass production, and if we were to succeed we must have leadership and assistance from the Government.

Votes of thanks having been passed to Dr. Russell Wells and the Chairman, the Principal invited the audience to visit the workshops, swimming bath and gymnasium, where demonstrations were taking place.

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDEEN.—Plans are being prepared for a refreshment room on the north side of the bathing station.

ADWICK.—Plans passed by U.D.C.: Baptist chapel at Woodlands.

AYR.—Plans for the reconstruction of the Ayr Picturedrome at Boswell Park, by Messrs. Green, were presented at the Dean of Guild Court and continued for a fortnight. The estimated cost of reconstruction, which is to be carried out by direct labour, is £30,000.

BANFFSHIRE.—At a special meeting of the Upper District Committee of the C.C., plans of proposed workmen's houses were adopted, and it was decided to build six houses on the sites formerly chosen.

BATH.—Plans approved: Scullery, &c., 42, Lower Oldfield-park; alterations and additions, "Crowe Hall," Widcombe-hill; alterations and additions, 8, Sion-hill Place; site for Army Hut, Weymouth-street; new ovens, Manvers-street.

BELPER.—The R.D.C. has provisionally accepted a house-building scheme in parts of their area. One tender was for £9,571 for houses at Duffield, and another at Horsley and Horsley Woodhouse, these being at £967 for parlour type, and £857 for non-parlour type.

BETHNAL GREEN.—The L.C.C. has sanctioned the borrowing by the B.C. of £37,500 for housing purposes.

BOLTON.—Plans passed: Messrs. J. Ashworth, Ltd., ambulance room, &c., Holland-street; Rev. H. W. Dick, club room, Stephens-street; W. Townson & Sons, transformer house, Higher Swan-lane; Mr. J. Johnson, motor garage, 21, Morris Green; Joseph Boyle, Ltd., Petrol Store, Greenwood-street; Peter Crook, Ltd., Two Crossings, Thwaites-street, and Moon's Fold; London City and Midland Bank, alterations, 252, Chorley Old-road; Swan-lane Spinning Co., motor garage, Swan-lane Mill; Johnson Bros., alterations to offices, &c., Knowsley-street; Bolton Co-operative Society, Ltd., alterations, 140, Newport-street; Maco Spinning Co., Ltd., transformer House, Oriel-street; extension to offices, Alice street; Mr. W. Birchby, motor garage, Rupert street; Watson & Watson, raising roof of store, Bowker's-row; Bolton Ice and Cold Storage Co., crossing, Thynne-street; Bolton Ice and Cold Storage Co., covering to yard, Thynne-street; Lipton's, Ltd., alterations to shops, Corporation-street and Market-street.

BOURNEMOUTH.—Plans passed by T.C.: Lavatories, 154, Wimborne-road, for Messrs. A. Butler, Ltd.; accumulator store, garage, Christchurch-road, by Messrs. Newland & Co.; conservatory, "Withycroft," Stourcliff-road, for Miss Moser; greenhouse, "Montcagle," St. Catherine's-road, for Miss Jessop; additions to house, Boreham-road, for Mr. E. J. Mills; two bungalows, Richmond Park-avenue, for Mr. W. Hayward; house, Abinger-road, for Mr. W. J. Kingsbury; bungalow, 7, Seaward-avenue, for Mr. A. Rendall; alterations to premises, 129, Poole-road, for Messrs. Barclay's Bank, Ltd.; two houses, Grand Avenue, for Mr. A. Ives; alterations, "Glendale," Surrey-road, for Messrs. Hankinson & Sons; motor house, 7, Pauncefote-road, for Mr. H. W. Drake; house, Heatherlea-road, for Mr. A. F. Clarke; motor house, 35, Lowtherroad, for Mr. G. Dolman; offices, rear of 185, Holdenhurst-road, for Mr. A. J. Lawman; house, Charminster-avenue, for Mr. L. H. Day; bungalow, Rotherfield-road, for Mr. E. W. Weblin; house, St. Alban's-avenue, for Mr. G. F. Jordon; shop front, 29, Cromwell-road, for Mr. A. Wrenn; additions, 30, Livingstone-road, for Mr. W. J. Sheppard; conversion into flats, "St. Margarets," Parkwood-road, for Mrs. Salisse; house, Hathaway-road, for Messrs. Nightingale & Burridge; house, Newstead-road, for Messrs. Nightingale & Burridge; house, Queen's Park-avenue, for Mr. J. Drewitt; house, Soberton-road, for Mr. C. V. Miller; house, Methuen-road, for Mr. A. D. Lambert; house, Highfield-road, for Mr. W. H. Rolls; bungalow, Hengistbury-road, for Mr. S. Burge; bungalow, corner Charminster and Strondenroads, for Mr. H. C. Ridout; house, corner Firs Glen and Heathwood-roads, for Miss M. H. Whitaker; additions to garage, 137, Holdenhurst-road, for Messrs. Eastman's, Ltd.; additions, 92, Ensbury Park-road, for Mr. J. H. Chapman; operating theatre, Nursing Home, St. Stephen's-road, for Mr. C. Fox.

CHEADLE.—Plans passed by U.D.C.: House, Outwood-road, for Mr. J. W. Allen; addition, White Hart Hotel, for Mr. N. H. Hacking; bank premises, High-street, for Messrs. Gotch & Saunders.

COLERAINE.—The U.D.C. has approved of plans for a shirt factory for Messrs. Mitchell & Co.

DARTON.—Additions to houses, Beevor-lane, for Mr. F. Haigh; addition, Carr Green Farmhouse, for Messrs. Fountain & Burnley.

DEAL.—The T.C. has submitted the plans of the thirty-six houses to be erected at Upper Deal to the Ministry of Health for approval.

DUDLEY.—Plans passed by T.C.:—Mr. G. Bridgwater, re-building brewery, Victoria Inn, Dudley Wood; the Herald Press, Ltd., roof over yard, Priory-street, Dudley; Mr. C. Coulson, roof over yard, Alexandra street, Dudley; Mr. J. B. Dainty, shed, 4, Grange-road, Dudley; Mr. C. Darby, additions to domestic premises, Odd Fellows Arms, Steppingstone-street, Dudley; Mr. J. T. Dunn, cart shed, rear of 34-35, Cinder Bank; Mr. E. Grey, alterations, to premises High-street, Dudley.

DUNDEE.—The Housing Committee has approved of contracts for 100 houses for the second of the Dundee schemes. This scheme will be developed at Stirling Park, and the houses will cost £907 each. The houses on this basis will be built of brick and the total cost will be £90,685. The city engineer has reported that stone would cost £100 more per house, and it has been agreed to communicate with the Board asking whether the use of stone would be sanctioned for the next scheme.

EAST HAM.—Plans passed: Extension to factory, Burnaby-street, for Mr. J. N. Henderson; garage, &c., 1, Monmouth-road, for Mr. J. W. Lohden; Baptist Chapel, Sebert-road, for Messrs. Haines & Warwick.

EDINBURGH.—Plans for the demolition of Albert Buildings, Shandwick-place, and the erection of a super cinema have been before the Dean of Guild Court and deferred. Mr. F. E. Blanc is the architect, and it is stated that the proposed works will cost £150,000.

HORNCASTLE.—Mr. E. M. Konstam has conducted a public inquiry to consider objections to the draft scheme deposited by the Lindsey Land Drainage Committee for the improvement of the lower portion of the River Bain. The estimated cost of the work is £4,848 16s.

HULL.—Plans passed: Hill & Ward, houses, Newland-park; British Oil & Cake Garden Village, Ltd., 56 houses, New Garden Village, Holderness-road; T. Ralph, house and stable, Stoneferry-road and Lorraine-street; Taylor's Drug Co., alterations, 162, Hessle-road; W. Lowery, stable and garage, Newland-park; J. Hargreaves & Sons, offices, &c., Lime-street; Hull Oil Manufacturing Co., Ltd., electric lift in house, and additions, Stoneferry; E. Boyd & Sons, sanitary improvements, 64, Studley-street; Hull Brewery Co., alterations and additions, 104, Walker-street; Humber Fishing & Fish Manure Co., roof, Maxwell-street; C. Arnett, workshop, 227, Anlaby-road; W. L. Thompson, Ltd., lavatory, &c., Anlaby-road; Blundell, Spence & Co., colour works, Bankside; T. H. Collins, warehouse, Mytongate and Sewer-lane; C. Witty, garage, 110, Park-avenue; Central Picture Hall Co., new roadway, Spencer-street; Hull Oil Manufacturing Co., Ltd., screening house, Stoneferry; Universal Oil Co., shed, Stoneferry; Hull Fish Manure Co., alterations, St. Andrew's Dock; Major & Co., Ltd., chimney, Sculcoates; W. Cussons, Ltd., alterations, Princes-avenue; R. Johnson & Sons, paper store, Lowgate; E. Gordon, workshop, Grange-street; Hargreaves Bros. & Co., Ltd., roof over loading yard, "Gipsyville," Dairycoates; J. F. Gaskell, alterations, Scott-street; Advance Engineering Co., Ltd., workshop, 195, High-street; General Electric Co., Ltd., boiler house, Charlotte-street; White & Son, alterations Humber-street; Hymers Governors, class-room, Hymers-avenue; G. & T. Earle, Ltd., additions, Wilmington; Hull Brewery Co., alterations, "Albert Dock Hotel," Commercial-road; British Oil and Cake Mills, Ltd., cask shed, Foster-street; Barton's Seed Crushing Mills, Ltd., additions, "Kings Mill," Stoneferry; Ouse Shipbuilding Co., Ltd., additions, Great Union-street; A. Carr, additions, 112 and 114, Clarendon-street.

ILFORD.—It is proposed to erect a hall in the Children's Hospital at an estimated cost of £14,250 as a war memorial. It is also proposed to erect an administrative block at a cost of £16,000.

ILKESTON.—Plans passed by T.C.: Seventeen concrete bungalows, Manor-lane, for Mr. A. Briggs; house, Little Hallam-lane, for Mr. W. M. Hallam; wash-house, 91, Crompton-street, for the Stanton Ironworks Co.; cart shed, Stanley-street, for Mr. G. P. Jackson; motor shed, Blackhills-drive, for the United Yeast Co.

LAMBETH.—The B.C. approves of the plans presented to the L.C.C. by Messrs. Clutton, on behalf of the Ecclesiastical Commissioners for the formation of a new street between Cancell-road and Elliott-road, Brixton, so as to give access to cottages proposed to be erected by the Commissioners.

LEEDS.—Plans approved by Theatres Committee: Additions and alterations, at picture house, Parliament-road, for Messrs. H. Cohen and M. Whites.—Certificates of approval for the construction of the following works have been given: Mr. G. W. Atkinson, two wooden bungalows in Town-street, Beeston; Messrs. A. Geldard & Co., two houses, Moor Park Drive, Headingly; Messrs. C. H. & F. Lax, house, West Park-avenue, Roundhay; Mr. H. Stephenson, bungalow, Whitehall-road, Farnley; Mr. A. E. Lee, bungalow, Street-lane, Moortown.

MANCHESTER.—Under the will of the late Mr. Jesse Haworth, Manchester University will receive a legacy of £30,000 to be devoted to the extension of the Haworth buildings of the museum. Plans passed:—Addition to premises, Bromley-street, Clayton; floor to premises, No. 13, Sugar-lane; alterations to house and shops, Nos. 1,223 and 1,225, Ashton Old-road, Openshaw; boiler-house and chimney to works, Ashton Old-road and Wells-street, Openshaw; motor-shed in yard, Stokes-street, Clayton; house, Cheetham Hill-road and Heywood-street, Cheetham; shed to workshop, Langston-street, Cheetham; garage to works, Waterloo-street, Crumpsall; offices and works entrance, Cheetham Hill-road, Cheetham; garage to works, Holland-street, Newton Heath; shed to works, Stockport-road, Ardwick; 8 houses, Wilmslow-road, Withington; drains to 6 houses, Clifton-street and Lindsay-road, Burnage; 7 houses, Kingston-road, Didsbury; store to works and garage, Stanhope-street, Levenshulme; offices and workrooms, Berwick-street and Hill-street, Chorlton-upon-Medlock; stables, stores, &c., Ardwick-terrace, Ardwick; alteration and addition to club, 7, Park-street, Chorlton-upon-Medlock; alteration and addition to Sunday School, Sloane-street and Great Western-street, Moss Side; lavatory to "Holly House," Queen's-road, West Didsbury; motor garage, Wood-road, Withington; motor house, Wilbraham-road, Withington; extension to premises, Heald-place, Rusholme; engineering workshop and garage, Cheetham Hill-road, Cheetham; extension to bakery, Phillips Park-road, Bradford; extension to joiner's shop to works, Ramsgate-street and Grove-street, Cheetham; garages to four houses, Sandileigh-avenue, Withington; alterations to bank, Wilbraham-road and Barlow Moor-road, Chorlton-cum-Hardy; garages to four houses, Ashwood-avenue, West Didsbury; alterations and additions to mill, Pryme-street, Hulme; garage, Clayton-lane, Clayton.

MARGATE.—Thirty additional houses are to be erected under the housing scheme of the T.C. At a cost of £26,146.—A new public shelter is to be erected in the Westbrook district.

MITCHAM.—Depot buildings, estimated to cost £5,500 are contemplated by the U.D.C.

PRESTON.—Plans approved: Mr. F. Mallott, extensions to weaving shed, Queen-street Yard Works; Mr. J. Miller, for Mr. T. D. Atherton, wood shed, Lancaster-road; Mr. W. Jackson, for Mr. J. Lees, shop, Tulketh Brow; Mr. D. Wignall, two houses, Marsh-Lane; Mr. J. A. Seward, additions to warehouse, Hudson-street; Mr. W. G. Crossthwaite, for Mr. J. Lofthouse, extension to garage, Fermor-road; Mr. H. Heaton, alteration to streets, Rossall-street; Mr. G. E. Bolshaw, for Mr. J. T. Jackson, alteration to shop, Friargate; Mr. F. Howarth, garage, Stanley-place.

ROMFORD.—Plans passed by R.D.C.: Buildings, Woodman-road, Great Warley, for Ilford, Ltd.; house, Butts, Green-road, Hornchurch, for Mr. A. Webb; additions, Upminster Lodge, Bird-lane, Upminster, for Mr. W. Shyvers; additions, Hayes Park-road, Hornchurch, for Messrs. Stafford, Allen & Sons.

ROTHERHAM.—Plans passed by T.C.: Masbro' Equitable Pioneers' Society, Ltd., Westgate, conversion of offices into shop; Mr. Oxley, "Sherwood View," Wellgate, shed; Rev. J. H. Jennings, St. John's-avenue, re-erection of Army Hut; Mr. Bernard Ward, near to Royal Oak Inn, Blackburn, timber framed building; Midland Iron Co., Ltd., Midland-road, two-storied extension to existing offices; the Governors of the Rotherham Grammar School, alterations and additions, to "Woodhurst," for conversion into Boys' Junior School.

SOUTHWARK.—Drainage plans passed by B.C.: By the National Union of Printers and Paper Workers, to 220, Blackfriars-road; Cannon Brewery Co., Ltd., to "Flying Horse," Walworth-road; Industrial Dwellings Co., Ltd., to Waleran Buildings, Old Kent-road; Dunn & Co., to 224, Old Kent-road; J. Pascall Ltd., to 96-100, Blackfriars-road; J. Marslan to workshop, York-avenue; J. Edgington & Co., Ltd., to 104, Old Kent-road; Mr. A. C. Cowdrey, to 20-22, Shorncliffe-road.

ST. MARYLEBONE.—The B.C. proposes to take all necessary steps that may be required under the Housing Acts for the purpose of acquiring compulsorily or otherwise the freehold of the site known as 43, Circus-road, in order that such site be sold to the Public Utility Housing Society, Ltd., for the purpose of erecting flats in accordance with plans approved by the London Housing Board and the Council.—The Western Ophthalmic Hospital, Marylebone-road, is endeavouring to raise a fund of £50,000 for rebuilding purposes. The present hospital building, which has been occupied by the institution for sixty-five years, was, according to tradition, used by King George III as a country convalescent home for his children.

ST. PANCRAS.—Alterations at "Camden Arms," 1, Randolph-street. The L.C.C. has sanctioned the borrowing by the B.C. of £20,358 for repaving works.

TODMORDEN.—Conversion of stables into houses, &c., for Cornholme Dyeing Co.; alterations, "Hare and Hounds" public house, for Messrs. R. Whitaker & Sons; boiler house, &c., Ramsden Wood Bleach Works, for Messrs. James Currie, Ltd.

WALTHAMSTOW.—Plans passed by U.D.C.: Yard covering and sanitary alteration, 161 and 163, Coppermill-lane, for Mr. F. Hayes; lock-up shop alteration, 143, Wood-street, for Maypole Dairy Co.; sanitary improvements, 25, Back-road, for Mr. H. C. Lane.

WEST HAM.—Alterations, Imperial Palace of Varieties, Canning Town, for Messrs. Adams & Coles; additions, 62, Woodgrange-road, Forest Gate, for Mr. R. C. Turner Gordon; alterations, 37a, Woodgrange road, for Mr. M. Lewis; tenements, Boxley-street, Silvertown, for Mr. J. R. Knowles; alterations, Odhams' Wharf, for Messrs. C. Foster & Sons; alterations to premises, Bridge-road, Mr. T. J. Kirkwood, for Messrs. Shimwell & Co.; additions, 270, Queens-road, Upton Park, for Mr. R. C. Turner; alterations, 107, Freemason's-road, Custom House, for Mr. H. Kent; rebuilding of "Britannia" public house, Junction-street, for Messrs. Carter & Young.

WESTMINSTER.—Morley's Hotel, which occupies the entire east side of Trafalgar-square and extends into the Strand, has been acquired by the Government of the Union of South Africa. Extensive alterations are contemplated with a view to providing an imposing building for the London headquarters of the Union Government.

FIRES.

PENGE.—An outbreak of fire occurred at one o'clock on Saturday morning at Curtis's Timber Yard, Beckenham-road, Penge. Damage to the extent of £2,000 was done.

SOUTHEND.—Early on Saturday morning a fire broke out at St. Ann's Motor Engineering Works, London-road, totally destroying the premises and furniture warehouse adjacent, belonging to Mr. George Jackman. An adjoining academy of music was also partially burned.

*See also our List of Competitions, Contracts, etc.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. Since our last issue, steel, lead, turps, etc., have been revised.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge. £ s. d.

Best Stocks 4 17 0

Per 1000, Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons	3 17 0	Best Blue Pressed Staffordshire ...	12 4 0
Best Stourbridge Fire bricks	12 14 0	Do. Bullnose ..	12 9 0
		Blue Wire Cuts	10 6 6
GLAZED BRICKS—			
Best White, Ivory, and Salt Glazed Stretchers ..	29 10 0	D'ble Str'tch'rs	38 0 0
		D'ble Headers	35 0 0
		One Side and two Ends ..	39 0 0
Headers	29 0 0	Two Sides and one End	40 0 0
Quoins, Bullnose and 4½in. Flats	36 0 0	Splays and Squints.....	37 10 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

	s. d.	
Thames Ballast	19 6	per yard, delivered
Fit Sand	25 0	
Thames Sand	25 6	" " 2 miles
Best Washed Sand	25 6	" " radius
½in. Shingle for Ferro-Concrete	24 6	" " Paddington.
¾in. " "	25 6	" "

Per ton, delivered in London area.

	£ s. d.		£ s. d.
Best Portland Cement	4 7 6	..	4 13 0

80/6 alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above. 10 0

Best Ground Blue Lias Lime 2 19 6 at rly. depot.

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks. The sacks are charged at 2s. 6d. each and credited at 2s. each if returned in good condition within three months.

Grey Stone Lime ..... 75s. 0d. per ton delivered.
Stourbridge Fireclay in s'cks 44s. 8d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube.....	3 2½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	3 5½
Do. do. delivered on road wagons at Nine Elms Depot	3 6½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 11½
Do. do. delivered on road waggons at above stations, per ft. cube..	5 0½

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station London.	s. d.
Scappled random blocks .....Per Ft. Cube	17 4
6 in. sawn two sides landings to sizes (under 30 ft. super.) .....Per Ft. Super	11 10½
6 in. rubbed two sides, ditto ..... "	13 3½
3 in. sawn two sides slabs (random sizes) "	5 3
2 in. to 2½ in. sawn one side slabs (random sizes) ..... "	3 2
1½ in. to 2 in. ditto, ditto ..... "	2 9
HARD YORK— Delivered at any Goods Station London.	
Scappled random blocks .....Per Ft. Cube	13 3
6 in. sawn two sides landing to sizes (under 40ft. super.) .....Per Ft. Super	10 3
6 in. rubbed two sides ditto ..... "	12 1
4 in. sawn two sides slabs (random sizes) "	6 2
3 in. ditto, ditto "	4 11
2 in. self-faced random flags ..Per Yard Super	16 2

WOOD.

GOOD BUILDING DEAL.

Inches	£ s.	
4 × 11	67 10	per standard
4 × 9	67 10	"
4 × 8	60 0	"
4 × 7	50 0	"
3 × 8	48 10	"
3 × 7	47 10	"
2½ × 7	47 10	"
3 × 6	45 0	"
3 × 11	65 0	"
2 × 11	65 0	"
3 × 9	57 10	"
2½ × 9	57 10	"
3 × 4½	47 10	"
3 × 4	47 10	"

PLANED BOARDS.

1 × 11	67 10	"
1 × 9	65 0	"

PLAIN EDGE FLOORING.

Inches		
¾	40/-	square
1	45/-	"
1	52/6	"
1¼	66/-	"
1½	75/6	"

TONGUED AND GROOVED FLOORING.

Inches		
1	52/-	square
1¼	65/-	"
1½	75/-	"

WOOD (*Continued*).

MATCHINGS (BEST).

Inches		
¾	36/-	square
¾	42/6	"
1	54/-	"

BATTENS.

Inches	£ s.	
¾ × 2	45 0	per standard

SAWN LATHS.

Per bundle	0 6	6

Dry Wainscot Oak, per ft. super, as inch	0	3 6	to	0 4	0
¾ in. do. do.	0	3 0	..	—	
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	2 6	to	0 3	0
Cuba. Mahogany	0	4 0	to	0 4	6
Teak (Rangoon, Moulmein or Java), per load.. ..	75	0 0	to	85 0	0
American Whitewood planks, per ft. cube ..	0	1 8	to	1 4	0
Scotch Glue, per cwt.	10	0 0	..	—	
Liquid Glue, per cwt.....	6	12 0	..	—	

SLATES.

1st quality slates from Bangor or Portmadoc in truck load delivered London area. Per 1,000 of 1,200.

		£ s. d.
Best Blue Bangor Slates,	24 by 12	56 10 0
" " "	22 by 12	46 0 0
First quality "	22 by 11	42 10 0
" "	20 by 12	42 0 0
Best Blue Portmadoc "	20 by 10	36 10 0
" "	18 by 10	29 10 0
First quality "	18 by 9	24 5 0
" "	16 by 10	22 15 0
" "	16 by 8	18 0 0

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district.....	6 15 0
Ditto hand-made ditto.....	7 5 0
Ornamental ditto	7 2 6
Hip and valley tiles (per dozen)	0 15 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	36 0 0
Plain Compound Girders	40 0 0
" " Stancheons	42 0 0
In Roof Work	46 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £15 net value delivered direct from works. 5 per cent. less above gross discounts, carriage forward if sent from London stocks.)

	Sizes up to and including ⅜ in. Tubes.	Sizes up to and including 2in. Tubes.	Fittings.	Sizes 2½ in. to 6 in. Tubes.	Fittings.
Gas	+ 7½	— 5	— 5	— 2½	— 17½
Water	+17½	+15	Net	+ 6½	— 15
Steam....	+28½	+26½	+ 5	+ 16½	— 12½
Gal.Gas....	+32½	+30	+ 5	+ 22½	— 7½
" Water	+45	+42½	+ 10	+ 33½	— 5
" Steam	+57½	+55	+ 15	+ 45	— 2½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6 fts..	6 10	4 10	5 9½
2½ in. " ..	7 10½	5 4	7 3
3 in. " ..	9 8½	5 9½	8 8½
3½ in. " ..	10 9	7 3	10 2
4 in. " ..	11 9½	8 2½	11 7½

RAIN-WATER PIPES, &c.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts. plain	5 9	3 9	4 2
2½ in. " "	6 4	3 7	5 0
3 in. " "	7 6	4 6	6 8
3½ in. " "	9 1	5 3	7 9
4 in. " "	10 0	6 6	9 6

L.C.C. DRAIN PIPES,—9 ft. lengths. London Prices. 4 in., 14/-. .. 5 in., 17/9. .. 6 in., 21/5.

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common Bars	34 10 0	to	35 10 0
Staffordshire Crown Bars — good merchant quality	35 0 0	..	37 0 0
Staffordshire "Marked Bars"	36 10 0	..	38 10 0
Mild Steel Bars	35 0 0	..	37 0 0
Steel Bars. Ferro-Concrete quality, basis price ..	35 0 0	..	37 0 0
Hoop Iron, basis price ..	44 0 0	..	46 0 0
" Galvanised	62 0 0	..	66 0 0
Sheet Iron, and Soft Steel Black—			
Ordinary sizes to 20 g.	45 0 0	..	47 0 0
" " 24 g.	46 0 0	..	48 0 0
" " 26 g.	48 0 0	..	50 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6ft by 2ft. to 3ft. to 20 g.	56 0 0	..	58 0 0
Ordinary sizes, 6ft. by 2ft. to 3ft. to 22 g. and 24 g.....	57 0 0	..	59 0 0
Ordinary sizes, 6ft. by 2ft. to 3ft. to 26 g...	59 0 0	..	60 0 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9ft. 20 g.	44 0 0	..	45 0 0

METALS (*Continued*).

	Per ton in London. £ s. d.		£ s. d.
Ordinary sizes, 6ft. to 9ft. 22 g. and 24 g.	45 0 0	..	46 0 0
Ordinary sizes, 6ft. to 9ft. 26 g.	47 0 0	..	48 0 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	50 0 0	..	52 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	51 0 0	..	52 0 0
Best Soft Steel Sheets 26 g.	53 0 0	..	54 0 0
Cut Nails, 3in. to 6in. ..	47 10 0	..	48 10 0

(under 3in. usual trade extras.)

LEAD, &c.

Delivered in London.

	£ s. d.		
LEAD Sheet, English, 4 lb. and up ..... per ton	43 0 0	..	—
Pipe in coils	43 10 0	..	—
Soil Pipe	46 0 0	..	—
Compo pipe	47 0 0	..	—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	24 0 0	..	—
Do., ex country, carriage forward..... per ton	25 0 0	..	—
COPPER—			
Strong Sheet ....per lb.	0 2 3	..	—
Thin " .... "	0 2 4	..	—
Copper nails .... "	0 2 3	..	—
Copper wire .... "	0 2 4	..	—
TIN—English Ingots "	0 2 9	..	—
SOLDER—Plumbers' "	0 1 4	..	—
Tinmen's..... "	0 1 9	..	—
Blowpipe ..... "	0 2 0	..	—

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	7d.	32 oz. fourths	11d.
" thirds	7½d.	" thirds	1/-
21 " fourths	9d.	Fluted, Obscured and	
" thirds	9½d.	Enamelled Sheet,	
26 " fourths	10d.	15 oz.	10d.
" thirds	11d.	21 "	1/-

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES. Per Ft.

¼ Rolled plate	6½d.
⅜ Rough rolled and rough cast plate.....	7½d.
½ Rough rolled and rough cast plate.....	8½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic Arctic, Stippolyte, and small and large Flemish white	7½d.
Ditto, tinted	9½d.
Rolled Sheet	7d.
White Rolled Cathedral.....	7d.
Tinted do.	9d.

PAINTS, &c.

		£ s. d
Raw Linseed Oil in pipes..... per gallon		0 5 5
" " " in barrels .... "		0 5 7
" " " in drums .... "		0 5 9
Boiled " in barrels .... "		0 6 1
" " in drums .... "		0 6 3
Turpentine in barrels ..... "		0 9 10
" in drums (10 gall.) .. "		0 10 4
Genuine Ground English White Lead, per ton		73 15 0

(In not less than 5 cwt. casks.)

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots .....per ton delivered 100 5 0

Red Lead, Dry (packages extra) ..	per ton	54 0 0
Best Linseed Oil Putty	per cwt.	1 5 0
Filocol.....	per cwt.	1 0 6
Size. X D Quality.....	fkn.	0 5 9

VARNISHES, &c.

	Per gallon. £ s. d.	
Oak Varnish.....	Outside	0 18 0
Fine ditto	ditto	1 0 0
Fine Copal	ditto	1 1 0
Pale Copal	ditto	1 2 6
Pale Copal Carriage	ditto	1 4 6
Best ditto	ditto	1 14 0
Floor Varnish.....	Inside	0 19 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 6
Pale ditto	ditto	1 2 6
Best ditto	ditto	1 14 6
Best Japan Gold Size.....		0 16 6
Best Black Japan		1 0 9
Oak and Mahogany Stain (water)		0 17 6
Brunswick Black		0 11 0
Berlin Black.....		0 19 9
Knotting (patent)		1 18 6
French and Brush Polish		1 14 0
Liquid Dryers in Terebine		0 16 0
Cuirass Black Enamel		0 7 0

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	25	0
Add if in clay	" "	2	0
Add for every additional depth of 6 ft.	" "	1	6
Planking and strutting to trenches	per foot super	0	7½
Do. to sides of excavation, including shoring.	" "	1	6

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	55	0
Add if in underpinning in short lengths	" "	10	0
Add if in floors 6 in. thick	" "	4	0
Add if in beams	" "	5	0
Add if aggregate 1 : 2 : 4	" "	15	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	4	6

BRICKLAYER.

		£	s	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	59	15	0
Add if in stocks	"	12	10	0
Add if in Staffordshire blues	"	34	10	0
Add if in Portland cement and sand	"	4	15	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat strucks or weathered joint	" "	0	0	3½

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	1	0
Axed in stocks	" "	0	2	0
Rubbed and gauged jointed in putty camber or segmental	" "	0	7	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	8
Setting ordinary register grates and stoves	each	1	5	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	6	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	9	0
Three-quarter-inch vertical damp course	" "	14	3
One inch on flats in two thicknesses	" "	12	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	6

MASON.

		s.	d.
York stone templates fixed	per foot cube	22	0
York stone sills fixed	" "	35	0
Bath stone and all labour fixed	" "	16	9
Portland stone fixed	" "	23	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	98	0
Do. 20 in. × 10 in. Do. Do.	"	115	0
Do. 24 in. × 12 in. Do. Do.	"	117	6

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	9	6	
Do. joists	" "	10	6	
Do. roofs, floors and partitions	" "	11	9	
Do. trusses	" "	14	0	

		¾"	1"	1¼"	1½"
Deal rough close boarding	per sq.	60/–	81/–	100/–	108/–

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	68	0
Do. to beams	per ft. sup.	1	10
Centres for arches	"	2	4
Gutter boards and beams	"	1	9

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		82/–	104/–	120/–
Do. tongued and grooved	"		88/–	110/–	127/–
Do. matchings	"	74/–	89/–		
Moulded skirting, including backings and grounds	per ft. sup.	2/4	2/8	3/2	3/8

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	2	0
Two Do. Do. Do.	" "	2	6
Add for fitting and fixing	" "	0	6
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights ; average size	" "	5	6

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/8	2/11	3/1
Four-panel Do.	"	3/–	3/4	3/7
Two-panel moulded both sides	"	3/4	3/7	3/10
Four-panel Do. Do.	"	3/8	3/11	4/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	22	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	2/3	2/5	2/9
Deal shelves and bearers	"	2/–	2/2	2/3
Add if cross tongued	"	2/–	2/–	2/–

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		3/4	4/–	4/8	—	—
Deal strings wrot in both sides and framed	"	4/6	4/9	—	—	—

		s.	d.
Housings for steps and risers	each	1	0
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail ; average 3 in. × 3 in.	" "	6	3
Add if ramped	" "	12	6
Add if wreathed	" "	25	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	9d.	Rim locks	2/6
Sash fasteners	1/–	Mortice locks	5/6
Casement fasteners	1/6	Patent spring hinges and letting in to floor and making good	20/–
Casement stays	1/3		
Cupboard locks	1/6		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	42	9
Plain compound girders	"	46	9
Do. stanchions	"	48	9
In roof work	"	52	9

RAIN-WATER GOODS.

			3"	4"	5"	6"
Half-round plain rebated joints		ft. run	2/–	2/6	3/9	4/3
Ogee Do. Do.		"	2/6	3/3	4/–	5/–
Rain-water pipes with ears		"	2/11	3/9		
Extra for shoes and bends		each	4/7	6/3		
Do. stopped ends		"	2/–	2/6	3/9	4/3
Do. nozzles for inlets		"	2/3	2/9	4/–.	4/6

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	69	0
Do. Do. in flats	"	64	0
Extra labour and solder in coated cesspools	each	7	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	2	1
Copper nailing	" "	0	8

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/1	1/9	2/–	3/7	4/6	
Do. service	"	1/8	2/2	2/8	4/3		
Do. soil	"						7/2
Bends in lead pipe	each					3/7	9/–
Soldered stop ends	"	1/4	1/10	2/3	3/2	3/10	
Red lead joints	"	1/–	1/2	1/5	2/1	2/8	5/5
Wiped soldered joints	"	3/2	3/10	4/6	5/5	7/2	10/10
Lead traps and cleaning screws	"				16/2	21/7	
Bib cocks and joints	"	7/6	11/3	18/–	48/–		
Stop cocks and joints	"	18/–	20/–	30/–	75/–		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	3	4
Do. Do. Sirapite	" "	3	9
Do. Do. Keen's	" "	5	0
Add sawn lathing	" "	2	0
Add metal lathing	" "	3	6
Portland cement screed	" "	2	11
Do. plain face	" "	4	9
Mouldings in plaster	per 1 girth	0	3
One-and-a-half granolithic pavings	per yard sup.	6	11

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	1	10
26 oz. Do.	" "	2	0
Obscured sheet	" "	2	3
⅛ in. rolled plate	" "	1	3½
¼ in. rough rolled or cast plate	" "	1	4½
¼ in. wired cast plate	" "	1	9½

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	1	6
Knotting and priming	" "	1	0
Plain painting 1 coat	" "	1	6
Do. 2 coats	" "	2	4
Do. 3 coats	" "	3	2
Do. 4 coats	" "	4	0
Graining	" "	3	0
Varnishing twice	" "	2	6
Sizing	" "	0	4
Flatting	" "	0	9
Enamel	" "	2	0
Wax polishing	per foot sup.	0	11
French polishing	" "	1	9
Preparing for and hanging paper	per piece	2/– to 5/–	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him *not later than first post on Wednesday.*

* Denotes *accepted.* † Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*

ASPATRIA.—For the erection of 60 houses, including all road making, excavating and sewers, at the Outgang. Mr. H. Oldfield, M.S.A., architect and surveyor, Workington :—

Road Making and Sewers—

*W. Lattimer, Mealsgate	£2,484	2	0
Border Engineering Co., Beckermet	3,253	10	6

House Drains and Fencing—

*W. Lattimer, Mealsgate	2,103	11	10
Graham & Stewart, Workington	2,973	3	6

Sixty Cottages, Types "B" and "B4"—

*W Lattimer, Mealsgate	55,936	19	7
J. H. Reed & Sons, Carhill	76,782	12	0
Harrison Bros., Carhill	66,667	18	6
Graham & Stewart, Workington	65,519	8	11

BARRHEAD.—For construction of about 920 yards of 12 in. pipe sewer, for the T.C. Mr. Charles E. Wardlaw, engineer; quantities by engineer :—

*Hugh Leggat, Barrhead	£3,145	5	4
Houston & Young, Barrhead	3,506	5	0
Riddell & Co., Ltd., Bishopbriggs	4,324	18	0
Isaac Craik, Glasgow	5,110	0	1
G. Percy Trentham, Ltd., Edinburgh	5,174	18	1
Alex. Slack & Sons, Ltd., Glasgow	6,538	0	7

BENFIELDSIDE.—For the erection of 168 houses of various types, for the U.D.C. Mr. Thos. Knox, surveyor. Quantities by surveyor. :—

To be carried out by direct labour at cost not to exceed £875 for type "A" houses, and £975 for type "B" houses.

BRADFORD.—For painting at Blocks "H" and "L" at St. Luke's Hospital, for the Board of Guardians :—

*C. V. Hartley & Son £150

BRADFORD.—For mason and joiner work at St. Luke's Hospital, for the Board of Guardians :—

*W. Farnish & Son..... £130 & £129

DENNY.—For the erection of houses, etc., for the T.C. Mr. James Strang, architect, Vicar-street, Falkirk. Quantities by architect:—

Jas. Murdoch & Co. (*bricklayers*), Larbert; J. J. and P. McLachlan (*bricklayers*), Larbert; David Baxter (*joiner*), Denny; D. Mealls & Sons (*joiners*), Denny; Joseph Graham (*plumber*), Denny; David Macnair (*plasterer*), Falkirk; David Henderson (*electrician*), St. Vincent-street, Glasgow; James Hamilton (*painter*), Denny; David Robertson (*slater*), Denny; Drummond & Crowe (*slaters*), Laurieston; Festus Flaherty (*contractor for street making and water and gas mains*), Falkirk.

ESHER.—For the erection of new Police Training School, stables and married quarters, at Imber Court. The late Mr. J. Dixon Butler, F.R.I.B.A., architect, New Scotland Yard, S.W. Quantities by Messrs. Thurgood, Son & Chidgey, 18, Adam-street, Adelphi, W.C. :—

F. & H. Higgs	£30,330
J. W. Dickens	30,672
Soole & Son	30,800
Smith & Sons	30,825
Rice & Son	31,122
Dovey & Co.	31,200
W. H. Lorden & Sons	31,439
F. C. Minter	31,450
E. Potterton	41,500

HENDON.—For private street works, for the U.D.C. Mr. H. O. Knight, A.M.I.C.E., Engineer and Surveyor :—

*Thos. Adams, Wood Green	£2,980	3	6
Alan E. Palmer, Queniboro', near Leicester	4,427	3	0
Clements, Knowling & Co., Ealing	5,241	0	0
Howard Farrow, Golders Green	5,004	3	0
G. Percy Trentham, Ltd., Birmingham	6,413	17	6
G. Wimpey & Co., Ltd., Hammersmith	5,352	18	6
E. Rogers & Co., N. Kensington	5,343	0	0
Charles Carter, Golders Green	5,347	0	0
G. J. Anderson, Poplar	5,428	5	8
C. F. X. Hartigan, Northampton	5,786	19	0
Arding & Hobbs, Lavender Hill	5,626	8	8

GHENT.—For the construction of two reinforced concrete warehouses, for the Municipal Authority :—

*Van Kerchove & Gilson, Ghent.

GILDERSOME.—For laying out of the vicarage site for 41 houses, for the U.D.C. :—

For kerbing and sewering only :

Grayshon Bros., Bradford	£923	8	3

GILDERSOME.—For the erection of 4 houses, for the U.D.C. Mr. T. A. Buttery, architect, Queen-street, Morley :—

*Geo. Holdsworth & Son (mason), Gildersome	£1,709	0	
*W. Ventress & Son (joiner), Gildersome	890	0	
*J. Wilby & Son (plumber), Gildersome	394	0	
*Geo. Crossley & Son (plasterer), Birstall	287	10	
*Geo. Rogerson, Ltd. (slater), Morley	221	0	

GUILDFORD.—For repairs at Woodbridge Isolation Hospital, for the Guildford, Godalming and Woking Joint Hospital Board. Mr. J. H. Norris, architect, 51, High-street, Guildford :—

*Grove & Holt, Guildford	£710	6	2
Stanley Ellis, Guildford	741	0	0
Tribe & Robinson, Guildford	881	12	6
Bunning & Fitton Adams, Ltd., Godalming	964	0	0
Manor Works, Byfleet	1,054	0	0
T. Swayne & Son, Guildford	1,082	0	0
W. Bullen & Son, Guildford	1,144	0	0

HULL.—For the erection of three pairs of semi-detached villas on the Anlaby Park Estate, Hull, for The City Land Syndicate, Ltd. Mr. A. J. Windross, surveyor :—

*A. N. Whincop, Hull. J. H. Fenwick, Hull. A. Robson, Hull.

HULL.—For the erection of 130 houses, for the Corporation :—

*Quibell & Son—				
2 blocks of 4 dwellings,	at	£4,050	ea. block	£8,100
7 do.	at	3,903	do.	27,321
6 do.	at	3,520	do.	21,120
2 do.	at	4,050	do.	8,100
6 do.	at	3,367	do.	20,202
10 blocks of 2 dwellings,	at	2,020	do.	20,200
1 do.	at	1,550	do.	1,550
2 do.	at	2,065	do.	4,130
6 do.	at	1,760	do.	10,560
				£121,233

HULL.—Supply of two sets of automatic sewage pumping plant, to the T.C. :—

*Gwynnes, Ltd. : £1,480 for each installation.

LIVERPOOL.—For rebuilding wall at 156 & 158, Dale-street, for the Corporation :—

*Wm. Crosby & Sons, Liverpool.....£195

LIVERPOOL.—For repairs, &c., at 24, College lane, for the Corporation :—

*W. Owen, Liverpool.....£186 10s.

LIVERPOOL.—Installation of hot water system at 26, Canning-street, for the Corporation :—

*Pierce, Williams & Co., Liverpool....£178 15

LEEDS.—Supply and construction of centrifugal pumping plant at Headingley pumping station, for the T.C. :—

*Pulsometer Engineering Co..... £4,150

LEEDS.—For erection of houses, for the T.C., on the Hawksworth Wood Estate and Wyther Estate :—

Hawksworth Wood Estate—

*Ratcliffe & Smithson, Ltd.—			
20 houses, Type "A," normal foundations	£18,182	3	4
Extra for additional foundations	1,013	10	0
Do.—12 houses, Type "B," normal foundations	13,020	14	0
Extra for additional foundations	388	14	6
Do.—10 houses, Type "B"	11,352	5	5
*Paul Rhodes—4 houses, Type "B"	4,594	0	0
6 houses, Type "A"	5,754	0	0
*Wood Bros. (Leeds), Ltd.—			
48 houses, Type "A"	£46,056	0	0
12 houses, Type "A"	12,023	8	0

Wyther Estate—

*W. Airey & Son, Ltd.— 142 houses, Types "A" and "B"	136,340	0	0
*W. Ripley—56 houses, Types "A" and "B"	46,873	4	6
*M. Bristow—6 houses, Type "B"	5,885	2	0

LEEK (STAFFS.).—For the erection of 104 "A" type houses, being the second instalment of 242 houses comprised in housing scheme, for the U.D.C. Mr. W. E. Beacham, Council's Architect and Surveyor, Town Hall, Leek. Quantities by the architect :—

	Per house
Thos. Grace, Leek—42 houses	£750
S. Salt, Leek 36 ,,	750
Heath & Sons, Leek 26 ,,	750

Based on April prices

LONDON.—For cleaning and painting at Deal street School, Whitechapel, for the L.C.C. :—

*W. Bailey, Greenwich	£1,348
J. Scott Fenn, Woolwich	1,397
W. Lawrence & Son, Ltd., E.C.	1,555
A. H. Inns, E.C.	1,585
Vigor & Co. (Poplar), Ltd., Poplar	1,629
J. Marsland & Sons, Ltd., Walworth	1,660
Lister & Co. (Builders), Ltd., E.C.	1,802
J. Stokes & Sons, East Ham	1,815
Whitbys, London	2,045

LONDON.—For erection of playshed at Coverdale-road School, Hammersmith, for the L.C.C. :—

*A. Roberts & Co., Ltd. £242

LONDON.—For painting of ironwork at Limehouse Generating Station, for the Stepney B.C. :—

*Vigor & Co. (Poplar), Ltd. £155

LONDON.—For supply of corrugated iron sheeting for enclosing land at Oak-lane, for the Stepney B.C. :—

*John Lysaght, Ltd. £248 11 11

LONDON.—For steelwork of foundations for plant at electricity works of the St. Marylebone B.C. :—

	Supply and Delivery only.	Erected Complete.
*Sanders & Forster, Ltd.	—	£3,740 0
T. W. Palmer & Co., Ltd.	3,634 0 0	4,118 0
Dawnay & Sons, Ltd.	3,176 0 0	3,747 0
Measures Bros., Ltd.	3,233 16 10	—
Aston Construction Co., Ltd.	3,717 0 0	4,380 0
Walker Bros., Ltd.	3,317 5 0	4,093 5
Babcock & Wilcox, Ltd.	4,315 0 0	4,500 0

LONDON.—For installation of new slipper baths, for the Lambeth B.C. :—

		Time for completion from date of order.
*George Jennings, Ltd., S.E.1 (*b*)	£2,600 19 8	9 weeks
Davis, Bennett & Co., S.W.1 (Builder's work to be carried out by A. Roberts & Co., Ltd., Earl's Court) (*a*)	2,549 0 0	26 weeks
Dent & Hellyer, Ltd., E.C.	2,858 0 0	10 weeks
Doulton & Co., Ltd., Lambeth	3,349 0 0	5 to 6 months

(*a*) Divisions of cubicles to be in polished Belgian granite slabs 1 in. thick, in two pieces, in lieu of enamelled slate.

(*b*) Subject to being able to obtain materials by prompt delivery.

LONDON.—For supply of 10 tons of "Asphaltmac," to the Bethnal Green B.C. :—

*Premier Bitumen & Asphalte Co... At £10 10s. per ton.

LONDON.—For (*a*) the erection of 19 blocks of maisonnettes, two cottages, and 10 blocks of flats on Brooksfield Estate, and (*b*) roads and sewer works in connection therewith, for the St. Pancras B.C. :—

*A. Monk, Lower Edmonton	(*a*)	£229,619
	(*b*)	12,928

	Highfield-avenue.	Dunstan-road.	Rodborough-road.	The Ridgeway.	Garrick-avenue.	Ambrose-avenue.	Russell-Gardens.	Sylvan-avenue.	Albert-road, Mill Hill.	Alba-gardens.	Sneath-avenue.	Total.
	£	£	£	£	£	£	£	£	£	£	£	£
*Thos. Adams, Wood Green—	3,980 3 6	4,129 3 0	2,570 13 6	6,058 19 0	2,664 0 6	2,756 12 6	3,097 4 6	4,234 12 0	1,258 18 0	2,543 15 0	2,785 0 0	36,079 1 6
Alan E. Palmer, Queniboro', near Leicester—	4,427 3 0	3,962 18 0	2,435 8 0	5,274 18 6	2,661 13 6	2,782 16 6	3,320 3 6	4,237 17 6	1,081 17 0	2,552 10 6	2,832 0 6	35,579 6 6
Clements, Knowling & Co., Ealing—	5,241 0 0	4,561 0 0	2,652 0 0	6,494 0 0	3,062 0 0	3,157 0 0	3,626 0 0	5,011 0 0	1,564 0 0	2,927 0 0	3,298 0 0	41,593 0 0
Howard Farrow, Golders Green—	5,004 3 0	4,807 9 0	2,915 18 6	6,813 6 6	2,924 18 6	3,035 2 3	3,403 18 3	5,430 12 6	1,536 18 0	2,805 8 6	3,171 0 9	41,848 15 9
G. Percy Trentham, Ltd., Birmingham—	5,706 4 3	3,490 7 0	3,281 16 3	3,861 15 3	3,550 6 3	3,843 10 0	——	——		3,302 2 6	3,581 7 0	42,031 6 0
G. Wimpey & Co., Ltd., Hammersmith—	5,352 18 6	4,819 6 4	2,852 12 0	6,614 17 2	3,112 10 6	3,234 1 6	3,725 1 2	4,971 1 4	1,433 16 8	3,033 7 6	3,317 15 0	42,467 7 8
E. Rogers & Co., N. Kensington—	5,343 0 0	4,769 0 0	2,996 0 0	6,957 0 0	3,071 0 0	3,195 0 0	3,615 0 0	5,071 0 0	1,483 0 0	2,985 0 0	3,363 0 0	42,848 0 0
Charles Carter, Golders Green—	5,347 0 0	4,846 0 0	2,887 0 0	6,788 0 0	3,125 0 0	3,246 0 0	3,659 0 0	5,409 0 0	1,459 0 0	3,099 0 0	3,354 0 0	43,217 0 0
G. J. Anderson, Poplar—	5,428 5 8	4,726 19 7	2,835 16 6	6,699 9 3	3,219 5 2	3,351 17 0	3,756 1 7	5,337 13 2	1,441 16 10	3,176 4 7	3,440 4 9	43,419 14 1
C. F. X. Hartigan, Northampton—	5,786 19 0	5,130 3 9	3,215 0 0	7,399 2 0	3,206 18 6	3,334 12 6	3,690 14 6	5,203 12 0	1,333 14 0	3,128 8 0	3,259 17 0	44,689 1 3
Arding & Hobbs, Lavender Hill—	5,626 8 8	4,814 15 8	2,894 6 10	6,828 1 8	3,542 3 0	3,482 8 9	4,154 14 1	5,854 3 8	1,531 5 0	3,402 12 4	3,749 8 5	45,880 8 1

‖ Withdrawn.

LONDON (KENSINGTON).—For the erection of four cottages and 36 flats, for the City Council. Mr. A. S. Soutar, architect, 8, King William-street, Charing Cross, W.C.2. Quantities by Mr. E. J. Fairchild, F.S.I., 10, John-street, Adelphi, W.C.:—

*Lane Bros., Kensington	£38,481
A. S. Franklin, N. Kensington	39,900
Allen Fairhead & Son, Enfield	39,993
Bovis, Ltd., W.1	39,995
A. Roberts & Co., Ltd., Earl's Court	40,600
T. W. Heath, Ltd., Kensington	43,290
G. Nelson Watts, Notting-hill	47,700

MANCHESTER.—Tenders have been entered into by various departments of the Corporation for the following:—

Cleansing Committee—
*G. Evans & Co., Newton Heath—Supply of pitchpine.

Electricity Committee—
*Sir W. Arrol & Co.—Supply and erection of steel work for Barton Power Station extension.
*W. J. Jenkins & Co., Retford—Supply and erection of coal conveying plant.
*Arton & Co., Derby—Low-pressure water pipes at Barton Power Station.
*Dallow, Lambert & Co., Leicester—Heating installation for workshop and stores at Barton Power House.

Library Committee—
*Roneo, Ltd.—For library fittings.

Paving Committee—
*W. H. Worthington, Ltd.—Asphalte paving in Oxford-road, Chorlton.
*T. Wilson, Pendleton—Paving of passages in Gorton.
*W. Turner (Ardwick), Ltd.—Reconstruction of paving in streets at Gorton, Openshaw, Cheetham and Hulme.

MIDDLEWICH.—For the erection of 18 houses, for the U.D.C. Mr. F. W. Stocks, F.S.I., Town Hall Chambers, Middlewich:—

†Birchall Bros., Middlewich	£18,103 17 6
Harry Fairclough, Warrington	18,864 0 0

POCKLINGTON.—For erection of 16 houses at Market Weighton, for the R.D.C.:—

*J. Allison & Sons, Pocklington	£14,079 15

PORT TALBOT.—Alterations and additions to the Aberavon, Port Talbot and District General Hospital. Mr. T. Gibb, M.S.A., architect and surveyor, Station-road, Port Talbot:—

*S. T. Rees & Co., Aberavon	£1,769
Morgan, Cox & Sons, Port Talbot	1,866
J. H. Maggs & Co., Cardiff	2,100

STEVENAGE.—For the erection of 18 houses (Type Plans No. 154), in Walker-road, for the U.D.C. Mr. Walter Millard, architect, Hitchin:—

Porter & Little, Ware	£18,666
Shrouder & Matthews, Stevenage	20,898
Wright Bros., Enfield (for six only)	
R. H. Feild, Stevenage (for 12 only)	
W. Austin & Sons, Stevenage	22,210

TRADE NEWS.

We have received from the Trussed Concrete Steel Co., Ltd., the well-known reinforced concrete engineering specialists, of 23, Cranley-gardens, S.W. 7, an exceedingly well-produced brochure, illustrating some typical reinforced concrete buildings carried out by the firm on the "Kahn" system. The first few pages are devoted to a description of the system and illustrations of the "Trussed Bar," "Ribbed Bar," "Hy Rib" and "Spiral Coil" types of reinforcement, and are followed by illustrations of buildings constructed on the "Kahn" system to the designs of some fifty architects, including many of the leading architects of the country for this type of construction. There are also illustrations of many buildings erected abroad on this system. The brochure cannot fail to be of value to all architects interested in reinforced concrete, and shows that this material will lend itself to any architectural treatment from the highest class of public building to the simplest form of factory construction. Among the buildings illustrated are the Cunard Building at Liverpool, the new works for the Napier Motor Company at Acton, the new factory for the Gramophone Co., at Hayes; the Ford Motor Works at Detroit; the 22-story Railway Exchange Building, at St. Louis: the Melbourne Public Library, and the Birmingham Small Arms Company's works, at Birmingham. A feature of the factory buildings is the large amount of window space obtained. The fire-resisting properties of reinforced concrete are illustrated by photographs of some buildings after fire.

Staff Social.

On December 3, at Duncan Hall, Islington, the members of the "Lugano" Sports and Social Club, Nicholls & Clarke, Ltd.), held their first social gathering. The programme commenced with a concert, which was given entirely by the members of the staff; and the proceedings finished with a dance. Mr. Sydney H. Nicholls addressed the gathering. This club, which has only recently been founded, has a comprehensive programme of sports, the ground being at Salisbury Hall Farm, Chingford-road, Walthamstow, and promises to be a great success.

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